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ABSTRACT

The material presented in this report deals with the examination of educational policy and planning in Germany carried out as part of the program of the Education Committee of OECD for the Review of National Educational Policies. Part I is a report of the evaluation of German education made by the examiners. The material focuses on the course of educational reform since 1945, major recent events in educational policy-making at the national level, and some current reform proposals and goals for modernizing education. A summary record of the meeting between examiners, representatives of the German authorities and members of the OECD Education Committee comprises the second part of this volume. These three major areas of questions raised by the examiners are discussed: the need to reconceptualize German education so that the individual student would be prepared for the realities of his new role in an expanding, fluid, democratic society; the substantive need to reform German education along the lines of the policy commitment for equality of educational opprtunity; the problems of translating policy into practical, financial and other strategic commitments for educational reform. (Author/SHM)

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REVIEWS OF NATIONAL POLICIES FOR EDUCATION

GERMANY

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REVIEWS OF NATIONAL POLICIES FOR EDUCATION

GERMANY

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT
PARIS 1972

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PREFACE

The material presented in this report deals with the examination of educational policy and planning in Germany carried out as part of the programme of the Education Committee of OECD for the Review of National Educational Policies.

Behind this review lay the recognition of the long strides which German education needs to make in its development if it is to match the rapid advancement of other sectors of German society and in particular the German economy. Since the tragic years of World War II, the German economy has in fact moved to the forefront as one of the most advanced, modernized and productive in the world, while the educational system of the country has been moving forward within the confines of a structure relatively unchanged from its earlier, traditional patterns. Thus, the fluidity of modern, technological economy and the social demands generated from a prosperous population are today presenting Germany with the major challenge of the need to modernize rapidly its entire educational system. The general agreement which seems to exist with regard to this proposition has not automatically provided solutions as to needed policy measures and methods for their implementation.

The group of OECD examiners who visited Germany from 20th June through 3rd July 1971, subsequently prepared the Examiners' Report and Questions on German Educational Policies which begins this volume. This Report, together with the Background Report on Education in Germany* prepared jointly by the German Federal Government and the Länder Ministries of Education and Cultural Affairs of Germany, provided the basis for the "confrontation" meeting between the examiners, representatives of the German authorities and the Members of the OECD Education Committee, which took place in November of the same year.

* Educational Policy and Planning. Germany. OECD. 1972.

A summary record of the confrontation meeting makes up the second part of this volume. The discussion at this meeting focused on the three major areas of questions raised by the examiners: the need to reconceptualize German education so that the individual student would be prepared for the realities of his new role in an expanding, fluid, democratic society; the substantive need to reform German education along the lines of the policy commitment for equality of educational opportunity; the problems of translating policy into practical, financial and other strategic commitments for educational reform. The entire discussion moved forward on the basis of a series of converging opinions between the examiners and the German authorities, which reflected the underlying agreement that German education is at the crossroads of far-reaching change.

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Part One

EXAMINERS' REPORT AND QUESTIONS

INTRODUCTION

The report that follows is based upon our official visit to the Federal Republic of Germany from 20th June to 3rd July, 1971. We had been prepared for our extensive rounds of visits, interviews and informal conversations by study of a detailed background document, a report for the OECD examiners, made in its final form by the Kultusministerkonferenz (KMK) and the Federal Ministry of Education and Science. In addition, these authorities and the OECD Secretariat made available an extensive collection of documents, representing efforts by official and unofficial bodies, and by private researchers, to analyse the state of education in the Federal Republic in the past decade. We wish to express our deep gratitude to the educational authorities of the Federal Republic for the exceptionally generous hospitality and co-operation that we were granted during our stay, and to acknowledge at once our profound debt to the authors of the many research reports, policy statements, program proposals and other materials which we consulted. Without this human and intellectual help, so freely and abundantly given, this report could never have been written.

During our visit to the Federal Republic we were able to meet a broad cross-section of people concerned with education. In Bonn, Frankfurt, Berlin, Stuttgart, Hamburg, Bremen, and some of the outlying rural areas near these centres, we talked to political leaders, officials in the Federal, Länder and local governments, to school principals, teachers and students, to scholars, trade unionists, journalists, parents, and community leaders. We visited schools, universities, educational research institutes and educational administration offices. Everywhere and on every occasion we were met with lively interest in our enterprise, candour in approach to our questions, and a spirit of friendly help and co-operation. We hope that we have been able to repay our many generous hosts in Germany, in some small way at least, for their exceptional hospitality, by reflecting in this report the wide range of deeply-felt, yet cogently defended, opinions that we heard on our travels.

The review comes at a critical moment of decision for German education. The recently-formed Federal Ministry of Education and Science has begun to play its new role as partner with the Länder in educational policy making. Within the KMK, Wissenschaftsrat, Bildungsrat, Länder ministries of education, and within the Federal Ministry of Education and Science itself, new initiatives for change in education from pre-school to post-graduate levels are being proposed. Currently, this work has culminated largely in the programme of reform advanced in the reports of the Bund-Länder Kommission für Bildungsplanung (BLK), and our review pays much attention to these proposals. Yet the immediate prospects of devoting large resources of energy and money to the remaking of education are not now as good as they seemed only a year or even six months ago. While the need for reform is as much in evidence today as it was then, the decline in economic activity, both at home and abroad, makes it clear that reform may have to be carried out without assuming that vast new sums of money will be available to ease the transition. But whatever fate lies in store for the reform proposals of the BLK and other bodies, there appears to be wide agreement in Germany that fundamental change in the education system is a necessity. We feel privileged that we were able to share in even a limited way in these developments. We have learned much more than we have been able to contribute; but we hope that our teachers were also able to take some profit in the process of teaching us.

We extend our best wishes for success to all those in Germany who are grappling with these fundamental problems of educational change. By inviting us to Germany to observe, review and report, they have paid us the ultimate compliment: that somehow our reflections will help make a difference.

I

THE COURSE OF EDUCATIONAL REFORM SINCE 1945

Neither the present state of German education, nor the contemporary proposals for change, can be understood without recognition of the condition of Germany, both physical and psychological, in the immediate post-war years.

At the end of the Second World War much of Germany was physically in ruins, the country in the hands of its military occupiers, and its self-confidence gone. In those early post-war days each occupation authority tried in its characteristic way to eliminate what remained of Nazi institutions, in education as in all other facets of German national life, and to substitute in their place practices largely modelled on their own British, French, Soviet, or United States ideals. In this process, almost inevitably, serious doubt was cast upon the validity of all past German principles and practices in social and political life. Not only the more recent inventions of the Third Reich were marked down for dismantlement, but also many of the long established ways of doing things that dated at least from the beginning of the German Empire in 1871, even if not further back. The watchword was "democratization", and nowhere was this applied by the occupying powers with more zeal and enthusiasm than in education. "Re-education" plans were launched to teach the German people the ways of democratic governance. A similar pattern of events could be observed in Japan.

The stage was set for a struggle of wills between the occupying powers (supported by a small number of German educationists) who wanted to lay the foundation for a completely new educational structure and those in Germany, a clear majority, who, while they accepted the desirability of sweeping away Nazi innovations, were inclined to regard the approach to education enshrined in pre-1933 institutions as essentially sound.

What happened in education simply reflected developments in other aspects of German national life. The occupying powers issued laws and directives setting forth objectives enshrining their own highest ideals - ideals that, in fact, were in most cases not yet realized in their own countries. But the stubborn realities of the situation, the size of the task, lack of co-operation from many German authorities (who did not accept the need for many of the reforms proposed by the occupying powers), and the unexpectedly early restoration of German sovereignty, all conspired to defeat these grandiose, if well-intentioned, allied initiatives. Under their own new leaders, the German people passed the 1950s in setting about the reconstruction in its essentials of the kind of society and institutions with which they were familiar from the pre-Nazi period.

1. The Schools

Thus, the 1947 Allied Control Commission directive to the German ministers of education had sought to "democratize" education by requiring movement in the following directions: equality of educational opportunity; free tuition and teaching materials; an additional ninth year of compulsory schooling; educational guidance services; education for international understanding; school health services; specialized subject-matter training for all teachers, and not only for those teaching in the academic secondary schools; and curriculum changes that would emphasize education for civil responsibility and life in a democratic society. Most important of all perhaps, in view of the current (1971) debates over German educational reform, was the directive that "schools for the period of compulsory education should form a comprehensive educational system. The terms "elementary education" and "secondary education" should mean two consecutive levels of instruction, not two types or qualities of instruction which overlap. There followed a directive for the introduction of a six-year primary school and for "organically integrated curricula of all schools to allow for later transfer".*

As we can recognize, much of this ambitious programme remains unfulfilled in Germany today. In virtually none of the Länder during the 1950s was any serious attempt made to reconstruct the school system on any basis other than that extant in the 1920.** Indeed, some Länder appeared to have gone back to the years immediately before 1914 for their models of reconstruction. Only in the 1960s, and then

* H. Merkt, Dokumente zur Schulreform in Bayern, Richard Pflaum, München, 1952, p. 163.

** An exception is Berlin, which introduced a 6-year basic elementary school for all in the 1950s.

only partially accross Germany, were serious attempts made to break with important elements of the educational system developed during the nineteenth century. One might with justice point out that this unwillingness to abandon institutions that had proved themselves in the past, this reluctance to embark on experiments in new social and educational forms, were merely counterparts of the over-riding desire of the German people for an end to the utter social collapse and grievous physical privations that had afflicted them at the end of the Second World War. What the German people longed for at this time was essentially a return to "normalcy", and normalcy was defined, not without reason, as enough food to eat, a roof overhead, some decent clothes to wear, and stability of social and political institutions. The philosophy of hard, daily toil along conventional lines dominated social and political thought. Only in this way, it was thought, would a prosperous, economically secure Germany ever be re-erected. The phenomenal growth of West Germany's material prosperity, the so-called Wirtschaftswunder, was interpreted as proof of the validity of this philosophy.

Whatever its value, this approach to life was certainly not conducive to nurturing ideals of basic social reform. In consequence, and not without justice, two close observers of the German educational scene have dubbed the period from 1946-1966 as being, essentially, "Two Decades of Non-Reform".*

The Constitution of Germany was promulgated in May 1949. Article 7 established that education in its entirely (das gesamte Schulwesen) is to be placed under state supervision; Article 30 specified that, so far as is not otherwise provided, the exercise of state powers (Befugnisse) and the fulfillment of state responsibilities is a matter for the Länder. Education is one of the most important such functions entrusted to the Länder under the Constitution. In this way, the principle of a federal structure for educational provision, that had been a feature of both the Imperial and the Weimar constitutions, was enshrined in the 1949 Constitution. Inevitably, the existence of 11 separate sets of arrangements for education within the German boundaries, poses some touchy problems of co-ordination. For instance, children move from Land to Land, and their schooling may be gravely set back unless some minimum concern for standardization of school structures and curricula is shown. Out of this need, the Ständige Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland (the Permanent Conference of the Ministers of Culture) was born and has grown.

By no means all critical voices were silent, and all reform attempts stilled during the two decades following 1946. In 1953, the Federal and

* Saul B. Robinsohn and J. Caspar Kuhlmann, "Two Decades of Non-Reform in West German Education", Comparative Education Review, XI, 3, October 1967.

Länder governments together established a committee of experts, the Deutscher Ausschuss für das Erziehungs- und Bildungswesen, and charged it with the duty "to survey the German system of education and to promote its development through advice and recommendations". It quickly came to the conclusion that only wide-ranging reform would suffice to bring the schools to terms with the realities of life in a modern, industrialized and democratic society. Nevertheless, the series of suggestions based on compromises the Ausschuss then issued hardly corresponded to the need for fundamental change that the Ausschuss itself had proclaimed. The extension of compulsory education to cover nine, and then ten, years of schooling; improvement in the offerings of the upper levels of the elementary school (Hauptschule); more training in academic subject matter for elementary school teachers; and greater attention to civic education, so that young people could learn at school some of the principles needed for life in a democratic society, all were worthwhile, but hardly radical, reforms, especially if compared with changes in educational systems in other parts of Europe. The famous cap-stone of the work of the Deutscher Ausschuss, the so-called Rahmenplan (1959), was an essentially moderate document. While it contained a host of suggestions for modification in detail of the German educational system, its most far-reaching proposal was to establish two intermediate years of schooling (Förderstufe) after the end of the 4-year elementary school that would be common to all three parallel types of post-primary schooling: Gymnasium, Realschule, and Hauptschule. During these two years, while following a common curriculum, pupils could be observed, tested, counselled and eventually sorted for allocation to the traditional types of secondary and higher elementary school. This was essentially what the cycle d'observation was intended to do in France. Yet even this modest proposal could not find in the 1960s the necessary political support in the Länder for its realization across the breadth of Germany. While a few of the Länder (primarily the City-states) have moved even beyond the Rahmenplan proposals and have begun to erect a form of comprehensive secondary schooling, the year 1971 sees the majority of Land educational authorities in many respects still in the situation that the Rahmenplan was seeking to change back in 1959.

Today Germany stands uncertainly on the brink of comprehensive and thoroughgoing school reform for the first time in her history. It is as if a dam has suddenly given way after many years of minor leaks, that were, however, never enough to relieve the pressure steadily building up behind the barrage. The lag between the economic and social needs of modern German society and the slow pace of change of the educational system has contributed to that pressure. A decade and a half of smaller initiatives, conceived without comprehensive planning has been followed in the last few years by massive deliberations, inquiry and planning, initiated at the Bund level. The result has been a

succession of formidable reform proposals that are considered at length below and which, if they are implemented, will bring about a decisive modernization of the German schools. In the past, reform plans have lacked sufficient political will to give them life and appropriate legislative and executive mechanisms to implement them. Now, education enjoys a much higher priority on the political ladder, and the present proposals have the weight and prestige of the new Federal Ministry of Education and Science behing them. The undeniable obstacles to national policy-making raised by the deeply-rooted commitment to a federal system in education have been faced, and there is some chance that they can be surmounted.

Nonetheless, a realistic appraisal requires us to recognize the enormous influence of legalistically minded bureaucracies, especially at the Land level. Federalism per se may be desirable for reasons of cultural diversity, but the legalistic bureaucratic variety of it extant in Germany can be exceptionally slow moving and unimaginative. The disadvantages of federalism conducted in this spirit are hardly remediable by the mere construction of co-ordinating and advisory committees at the top. The essential need, if reform is to come about, is to develop the ability to work in a pragmatic (that is, a non-legalistic, non-ideological) manner towards constructive compromise. It has been said that federalism in West Germany has been permeated by reliance upon "negative consensus", meaning agreement only on the minimum possible at a given time, with any Land able to enter a veto. Serious efforts to reach positive, constructive consensus date only from very recent years, and there is still much to be done before such modes of operation become the norm.

For this reason, the prospects for educational reform now depend upon a clear political determination in Bund and Länder alike that the current proposals, unlike those of previous occasions, shall become a reality, in spite of the many organisational and procedural obstacles in the way of change.

2. Higher Education

The German universities are in a state of turmoil and transition, as are many universities in the western world. Inevitably, apart from certain universal features, German universities reflect their nation's historic traditions and conflicts, and we should be aware that here, too, the present crisis has to be understood in terms of Germany's unique past.

German universities were long known for their academic excellence, their jealously guarded autonomy (in spite of their being largely State-financed), their elitist character, and their extraordinary dominance

by the tenured, full professors, the so-called Ordinarien. One may suspect that university autonomy was never as great as has been commonly thought. For example, Paulsen cites figures for the nineteenth century showing that 20-30% of Ordinarius professors were appointed by the State against, or without the consent of, the respective faculties. * Moreover, the whole process of Berufung (professorial appointment), once the faculty had made its recommendation, was a bureaucratic one, negotiated strictly between the individual scholar and the Kultusministerium (and Finanzministerium). This had two consequences. It heightened the de facto power of the already strong State bureaucracy vis-à-vis the professor; and it strengthened the position of the Ordinarius vis-à-vis his colleagues. Especially if he was taking up a new chair, the professor could demand an entire Institut made to order for him, and its personnel and equipment were his for life. Hence, the Ordinarien presided over their institutes like princes over small fiefs, subject to no control from above, whether from ministry, rector, senate, or faculty. The autonomy commonly ascribed to the university was thus in practice the individual autonomy of the Ordinarius professor, once he had been appointed and established with his institute.

After 1945, universities were restored in much the same form as they had existed before, despite the fact that their structures were authoritarian, particularly within the institutes, and their traditions weakened by their ready acceptance of Nazi ideals and practices. In the period of Germany's reconstruction till the mid-1960s, the university population increased rapidly, while the pressure of numbers was only partially alleviated by the creation of new universities. In the early 1960s, the inadequacies of the university, particularly in the recruitment of its students, the character of its teaching, and its oligarchic governance were articulated by university reformers and felt by students.

Schools will normally reflect the values of the society that supports them, and German universities and higher technical schools have mirrored only too well the hierarchical and authoritarian society they served. They were excellent vehicles for inculcating in young people a respect for duly constituted authority, hesitance in expressing one's own opinion, avoidance a social commitment, and a complete lack of consciousness that there might be some important general questions of school or university organisation where student opinion should be heard as of right, and even acted upon. A system of higher education based on the principle of paternalistic Obrigkeit could endure and even prosper in a society that enshrined that principle in all aspects of life - in employment, government, army, and even family

* See Friedrich Paulsen, Die deutschen Universitäten und das Universitätsstudium, Ascher, Berlin, 1902, pp. 101-102.

relations. But as society changed in the post-war Germany, as industry, the polity, the army and the family all began to abandon modes of authority based primarily on duty derived from status, and turned to consensual forms, higher educational institutions in particular came under severe pressure to reform their practices. Thus, modernization of higher education in Germany has involved demands not only for an extension of educational opportunities to more people, the introduction of new subjects and the revamping of existing curricula, but also for a change in governance and teaching style.

Reforms to meet these demands were proposed, and in some cases partially instituted in a few universities, but were seriously delayed by the resistance of the professors who would not concede that their virtually untramelled power over assigned funds, staff, students, and curriculum was now out-moded. Indeed, most Ordinarien appeared to be incapable of recognizing any legitimacy at all in the various claims made upon them by the young. The professors defined the university as, in its essence, simply themselves. The rector, whom they elected from among themselves for a term of one year only, was regarded as a figurehead, a primus inter pares, properly empty of any power save that which they had given him, and which they could take back at will. The professors commanded all the money, all the prestige, all the power. A professor holding the chair at a university was expected to define the subject in his own terms, and in his alone. In the extreme case, a subordinate who thought, taught, or wrote differently, might take his leave, for he had demonstrated his unwillingness to belong to the "school" that the professor had established or represented. Assistants, even Dozenten, were the professor's men, to be made or broken as he wished. Such was the reality of Lehrfreiheit.

As for the students, they were not in the university at all, except in a strictly legal sense; they were simply at the university. They could come and go as they desired from university to university, seeking instruction at whichever institution they pleased, from "schools" they found congenial. When they felt themselves sufficiently prepared to face the examinations of the university and the State they could present themselves. The choice of timing was theirs alone. Such was the reality of Lernfreiheit, romanticized in various ways as alte Burschenherrlichkeit, and the like. While it gave German students unexampled freedom, it also gave them virtually no practical status in the university hierarchy.

Apart from the burdens of tradition, German university reform has had another peculiar obstacle to overcome. The generation gap common to so many countries appears in Germany not only as a deep ideological gulf between young and old, but also as a chronological and thereby a physical separation. Between the two extremes of the adult

age-range stands a generation, with a modal age of 40-60 years, whose ranks were eroded by war and its aftermath. In the normal course of events, it is upon the shoulders of this middle-aged generation that the task of mediating between students and Ordinarien naturally falls. But they were unable to sway the professors to make concessions in time. Hence, perhaps the cause for the long uncompromising stand taken by so many older members of the university, as well as for the peculiar stridence of language, tone and action with which the younger members have assailed their seniors.

The Länder governments responsible for universities and, to some extent, the universities themselves sought to find reforms that would allow the old institutions to meet the new and urgent demands of a changed society and an aroused youth. Reforms were promulgated, and our visit came at a time when German universities were in the midst of the most varied experiments undertaken under sharply differing conditions. Today both the formal statutes and the actual reality of universities differ among Länder and even within Länder. On the one hand, the governance of German universities has been radically changed by new state laws providing for different forms of Mitbestimmung, or participation. Drittelparität (equal representation by professorial staff, sub-professorial staff, and students on governing committees) has been embodied in statutes on university governance in one or two of the Länder. Even in states where no new formal structures have been devised, the trend towards ever greater participation by all members of the university community is unmistakable. On the other hand, structural changes have been made so that old faculties have in some places been dissolved into new Fachbereiche (special fields, that cut across traditional disciplinary boundaries and focus research and teaching on significant social problem areas). Many universities now stand on the verge of still further reforms in the curricular field and various radical proposals have already been submitted, often with fiery impatience and, considering the financial possibilities, breathtaking impracticality.

Overshadowing all discussion of university reform is the Bonn Government's draft of a Federal law to govern higher education throughout Germany (the so-called Hochschulrahmengesetz). The Federal Government has accepted virtually in toto the proposals of the Wissenschaftsrat (Science Council) and intends to use its recently acquired prerogatives to establish a common structural and administrative pattern for all institutions of higher education in Germany. We shall examine these proposals in more detail below. Many of the changes now being made at Land level anticipate the changes that will be required should the Hochschulrahmengesetz become law: in particular, the pressure to establish Gesamthochschulen (comprehensive institutions of higher education, where all kinds of programmes, including vocational ones, such as teacher training and the training of engineers,

are brought together within the framework of a common institution); to guarantee participation by students and non-professorial faculty in university policy-making; to transform the old faculties dominated by the Ordinarien into more flexibly conceived departments; to introduce shorter periods of study leading to first and second degrees; and to introduce less austere methods of teaching and more vocationally relevant and flexible curricula.

The major problem now facing universities and other institutions of higher education in Germany is to find the path that will take them safely into the future. They must succeed in steering between the generally accepted demands for fundamental changes and the surging tides of anger, violence and illiberalism, every whit as offensive as the old authoritarian university, that threaten to sweep some universities completely away. The first slow, almost glacially turgid, march to reform of the early 1960s was engulfed by the wave of student unrest that began in 1966-67. The danger is ever-present that the contemporary efforts at reform will be similarly overwhelmed, though perhaps now with less justification. The effects upon German higher education would be even more traumatic today than they were then. Already, a considerable antipathy to continued university autonomy is making itself heard. Public opposition is growing to the provision of scarce tax revenues for the support of institutions in perpetual turmoil. While present levels of support may be defended, it may prove very difficult to persuade the voters and hence the Länder politicians of the wisdom of providing additional funds for more staff, improved facilities, and more generous stipends. Yet it is upon these practical improvements that a great deal of the hopes for timely and adequate reform must rest. The German universities, then, have entered the 1970s caught between unenviably difficult alternatives: they need to go fast along the road to change, but not too fast; they need to court public sympathy, or at least acquiescence, but not be subservient to it; and, while preserving the old excellences, they need desperately to modernize and create anew.

3. Vocational Education

Apart from her universities, another educational field that had in the past reached standards of excellence which made Germany world famous was the thorough system of industrial training. Under the traditional "dual system", which is strongly entrenched, all young people under 18 who are not in full-time education must attend school for between 8 and 12 hours a week. Coupled with this is apprentice training under the control of the various industrial and commercial organisations, e. g. , the Handelskammer and the Federal Ministry of Labour and Social Affairs. The training done mainly on the factory floor follows

detailed prescribed norms which are enforced by a strict examination system.

It is now widely acknowledged that this system, excellent as it may have been, is no longer fully appropriate to a modern industrial society. In particular, as there are some 600 recognized qualifications each covering a narrow field, the flexibility and mobility which a rapidly developing industrial structure demands, are made impossible. Specific skills soon become obsolete, so the need is for a broader vocational training, permeated by theory and providing the young worker with mastery of the basic principles used in a variety of related occupations. *

Certain moves towards an improvement in the system are being made by reducing the number of recognized qualifications and producing new training courses each covering a wider field. In the metal industry for instance it is envisaged that the present 46 schemes might be reduced to 12. To further such improvements an Institute for Research into Industrial Training (Institut für Beraufsausbildungsforschung) has recently been set up by the Federal Ministry of Labour and Social Affairs, control being vested in a Committee on which employers and employees in equal numbers have 10 seats out of 12. The Institute is generously financed by the Ministry and could bring considerable improvements, particularly if its activities are focused on the practical problems now facing vocational education in Germany, and the basic research is left to the Max-Planck Institut für Bildungsforschung, and similar institutions. It will also need to establish liaison with the research community in general - something which is not specifically provided for in its present statutes.

The other major weakness in the present system of vocational training, however, is the split between education and training (Bildung and Ausbildung) which should be reduced if not removed. As a prior condition the organisation and the curricula of vocational education must themselves be improved. In some Länder at least this is in hand. For instance in Hessen a range of technical schools, both full-time and part-time, is being developed which will serve the dual purpose of improving the education itself and opening up new avenues to higher education which at the moment are lacking. Already one aspect of this development is the introduction of a full-time Berufsgrundbildungsjahr (basic occupational training-year) replacing the first year of apprenticeship, thereby reducing employers' commitments while improving the vocational preparation of the apprentices themselves.

* It is said that in the United States, 50% of the young Americans who graduated from college in 1966 entered jobs that did not even exist in 1946.

The logical extension of this change is the complete integration of the remaining two years into the educational system. This seems to be the legitimate aspiration of many education authorities.

Demands for a reform of vocational training along these lines can be motivated by simple "technocratic" considerations: the need to have a labour force that is flexible, mobile, attuned to innovation, and alert to possibilities of adapting the techniques of one field to the requirements of another. While this is a legitimate partial aim for vocational training reform, it is not going to be sufficient to hold reform permanently at this level. The goal of good education in modern society is ultimately the development of the powers of the individual to live a creative and self-directed life; it is not simply the training of smoother, more valuable cogs to fit the giant industrial-commercial machine. The challenge is to create a more individually-oriented structure for vocational training out of the existing industrially-oriented system. Ultimately, a modernized vocational training system must consciously aim at equipping workers at all levels to contribute to the much-needed task of redesigning occupations and jobs so that they become major vehicles for promoting a sense of individual satisfaction. This difficult task is likely to occupy Federal and Land authorities, employers and teachers for a long time to come. Should the attempt be successful, Germany will once again have provided the world with a model of vocational training at its best. *

* See also Appendix, p. 117.

II

INSTITUTIONS AT THE NATIONAL LEVEL FOR THE DEVELOPMENT OF EDUCATION

The federal structure of West Germany has led to the establishment of a number of new bodies in educational planning and policy. They have developed without there being any long-term plan for the organisation of educational planning itself. The present situation is characterized by a number of institutional arrangements, partly overlapping in their tasks and sometimes overlapping in their members. "Role-accumulation", multiple meetings and the ensuing commitments often result in a shortage of time for consideration of policy issues. Another problem is the fact that some of the older institutions have not changed their functions as new agencies of planning and co-ordination have sprung up. In sum, and for clear historical reasons, there now exists an institutional pluralism in the realm of educational planning.

The Kultusministerkonferenz, or KMK (Permanent Conference of Ministers of Culture) was set up in 1949; its tasks are those of co-ordinating educational matters of national importance. The KMK is a working group of the ministers of education with a permanent secretariat in Bonn. For resolutions to be taken by the KMK unanimity is required; they then have to pass each Land parliament before becoming effective.

The Wissenschaftsrat (WR) (Science Council) was founded in 1957. The WR is a task-force responsible for making recommendations for education and research at the tertiary level, particularly in matters concerning the physical capacity, finance, and staffing of higher education and research. Its recommendations are supposed to inform and thereby guide the KMK and the Federal Ministry of Science (since 1969, the Ministry of Education and Science). It has 39 members, seated in two commissions. Twenty-two members sit in the Wissenschaftliche Kommission (Scientific Commission). This is an "expert" group and most of the members are appointed on the recommendation of various

scientific and university bodies in Germany. The remaining 17 members of the WR sit in the Verwaltungskommission (Administration Commission); 6 are appointed by the Federal Government, 11 (one per Land) by the Land Governments. The composition of the KMK, according to a recent list, is: 15 professors, 1 assistent, 4 industrialists, 18 politicians, and the Secretary-General of the Max-Planck-Gesellschaft. Because there are no student representatives, and no trade union representatives, there have been some heavy attacks on the WR by left and liberal groups, deploring what they view as the "establishment" leaning of the Council's membership.

The Deutscher Bildungsrat (German Education Council) was founded in 1966; it consists of two commissions: the Bildungskommission (Education Commission) and the Regierungskommission (Government Commission). The Education Commission has 18 members appointed for four years by the Länder (14) and by the Bund (4); the Government Commission consists of the 11 representatives of the Länder ministries of education, 4 representatives of the Bund and 3 representatives of civic organisations. It is important to note that, unlike the Wissenschaftliche Kommission of the WR, the Education Commission is not simply an expert group, but a mix of experts (academic people) and representatives of interest groups (for example, trade unions, churches). Its tasks were explicitly stated when the Council was set up:

- to draw up plans outlining needs and development in the educational systems in accordance with the nation's cultural, economic and social needs;
- to make proposals for restructuring the educational systems;
- to assess the financial resources required;
- to make recommendations for long-term educational planning.

The Bund-Länder-Kommission für Bildungsplanung (Bund-Länder Commission for Educational Planning) was founded in July 1970 in order to help implement the change in the Federal Constitution in May 1969, according to which the Bund was authorized to undertake educational planning jointly with the Länder Governments. The need for such a joint body became acute after the publication of the recommendations of the Education Council, particularly in its Strukturplan, and the Science Council, and the statements of the Federal Ministry for Education and Science on the long-term policy targets in education, as laid down in its Bildungsbericht '70. The latter document is a comprehensive blueprint for changing Germany's educational system from the bottom (pre-school) to the top (universities), and is a radical version of the Strukturplan. In technical terms one can say that the implementation issue became of prime importance, leading to questions of how

to co-ordinate the implementation of overall targets by the Länder responsible for educational policy in their territories. The 12-article agreement between the Bund and the Länder provides that membership of the Bund-Länder Commission shall consist of 11 representatives of the Länder ministries of education and 7 representatives of the Bund, the latter also carrying 11 votes. The Commission will take its decisions by a 3/4 majority of its 22 votes. This is an important new turn in the structure of German educational federalism. (KMK decisions require, as mentioned above, unanimity).

In the present political situation the Social Democrats (SPD) achieve the required 3/4 majority, counting the votes of the Bund and the SPD-governed Länder together. The recommendations of the Commission are submitted for deliberation and decision to the Federal Chancellor (1 vote) and the Minister-Presidents of the Länder governments (11 votes), sitting together. Their decisions are also taken by a 3/4 majority, but only those Länder who have agreed to a particular proposal are bound by the decisions.

The tasks of the Commission are the following (Article 2 of the agreement):

1. To prepare a long-term plan for the coherent development of the total educational system.

2. To prepare medium-term plans for the implementation of the targets of the plan.

3. To issue recommendations on the co-ordination of (partial) plans of the Bund or of the Länder which are ready for implementation.

4. To prepare emergency programmes.

5. To estimate the financial needs for the implementation of those plans and programmes and to make proposals for the necessary allocations by the Bund and the Länder.

6. To check and revise the plans, being approved by the Bund and the Länder Governments, on a permanent basis.

7. To propose pilot projects and to make arrangements for projects extending to more than one region in the fields of educational research and educational planning.

8. To promote the exchange of experience in educational planning at the international level.

For the first time, then, in the modern history of education in Germany, there is now a national body responsible for planning the development of education at all levels, from kindergarten through higher education; and responsible also for drafting a unified budget for the fulfilment of this plan. From the creation and labours of such a body, it may be hoped, some mighty consequences for education will flow.

III

MAJOR RECENT EVENTS IN EDUCATIONAL POLICY-MAKING AT THE NATIONAL LEVEL

No period in recent German history can surpass the record of the last few years for both the number and scope of officially-sponsored proposals for educational reform. Germany after the Second World War has not lacked plans for school reform, but the period since the beginning of 1969 must surely stand as a high-water mark in this respect. The sequence of events runs as follows:

January 1969

The Education Commission of the Bildungsrat (BR) presented its recommendations, entitled Zur Einrichtung von Schulversuchen mit Gesamtschulen ("On Setting up School Experiments with Comprehensive Schools"). The BR did not venture to recommend the general introduction of comprehensive schools; instead, a broadly-based experimental programme was proposed within which at least 40 comprehensive schools of the integrated type should be created in the various Länder. At the same time it was recommended by the KMK that experiments with different forms of comprehensive schools (including the additive* form) should be carried out. Although the recommendations were formulated in conciliatory terms, one detects a certain underlying preference among the members of the Education Commission in favour of the (integrated) comprehensive school.

* An additive, or co-operative, comprehensive school means a school that is composed of several separate units, often on different sites, but brought together for administrative purposes under one name and one administration. An integrated comprehensive school implies a much closer association of the separate units.

May 1969

Constitutional amendments of the Federal Grundgesetz (Basic Law), Articles 91 a and 91 b were passed. These amendments altered the type, extent and balance of the co-operation between the Bund and the Länder with regard to a number of Gemeinschaftsaufgaben (joint tasks). Education is one of them. Compared to the past, these amendments provide the legal basis for a much stronger involvement of the Bund in educational planning, budget-making, and the establishment of interregional research institutes.

October 1969

A statement by the new Bundeskanzler, Willy Brandt, on 28th October stressed internal reforms, saying: "Education, training, science and research are foremost among the reforms we intend to undertake".

April 1970

Publication of the Strukturplan ("Structural Plan for Education") by the Education Commission of the Education Council (BR) after four years work. The Strukturplan covers all levels of the educational system, except higher education which is reserved for the recommendations of the Science Council. Single parts of this plan had been presented before in separate recommendations based on numerous research studies of the Education Commission of the BR, under the chairmanship of Professor Helmut Becker, Max-Planck Institut für Bildungsforschung, Berlin.* The value of educational research in formulating reform proposals has been strongly demonstrated in these studies. They have lent both scope and depth to the Strukturplan, by improving knowledge concerning what is actually happening in education, as well as by investigating the probable consequences of following alternative paths of change. The recommendations on universal pre-school education and on unified teacher-training appear for the first time in the Strukturplan.

The main points of the plan are the following:

- introduction of pre-school education for all 3 and 4 year olds;
- school entrance at the age of 5, instead of 6 as now;

* See, for example, Heinrich Roth (ed.), Begabung und Lernen; Saul B. Robinsohn, Differenzierung in Sekundarschulwesen. Vorschläge zur Struktur der weiterführenden Schulen im Licht internationaler Erfahrung; Willi Albers, et al., Sozialprodukt, öffentliche Haushalt und Bildungsausgaben in der Bundesrepublik; Peter Siewert, Ausgabenberechnung für Ganztagsschulen.

- remodelling of the structure and curriculum of the primary school;
- introduction of a compulsory 10th year of schooling (9 years of full-time schooling, as of now);
- provision of a qualified intermediate leaving certificate for all, to be called Abitur I* (up to now over 60% of all students finish their school career after 9 years of elementary school without any intermediate certificate);
- a more widely differentiated range of subjects at the upper secondary stage leading to the Abitur II;*
- broadened entry to higher education via vocational and other non-Gymnasium courses;
- a fundamental reshaping of teacher education, practical training, and in-service training, to create a unified teaching profession, each member of which is skilled in subject matter, pedagogy, and the relevant social sciences.

The plan also includes a timetable showing the periods during which the targets could be implemented, and forecasts of personnel and financial requirements.

The Strukturplan is, as the Chairman of the Education Commission pointed out to us, a "fundamental consensus programme"; it is not surprising, therefore, that initial criticism came from SPD (Social Democrat) and FDP experts who regretted that the BR did not enunciate forthright support for the introduction of a comprehensive school system.

June 1970

The Science Council (WR) presented its recommendations for the structure and extension of higher education, 1970 to 1980.

The recommendations are based on two principles:

- reform of higher education must guarantee full development of research and broaden access to a research-based training;
- a radical re-organisation of higher education along the lines of "comprehensive" higher education institutions** is necessary

* In the most recent proposals, this hallowed term will disappear, to be replaced by the term Sekundarabschluss I, or II (Secondary leaving certificate I, or II).

** We remind the reader that a comprehensive institution of higher education (Gesamthochschule) is defined as one which brings together under one administration, and preferably on one site, different levels and types of post-secondary scientific and research-linked teaching that are presently located in many separate IHE's, for example, in universities, technical universities and Hochschulen, and in pedagogical and engineering

in order to provide post-secondary and recurrent education that matches the abilities and interests of a growing student population.

The Council anticipated an enrolment of about one million students in higher education by 1980, compared with an enrolment of about 450,000 at present. In order to channel this quantitative explosion the Council linked it with a new conception of study courses which guarantee vocationally oriented degrees after 3 years (Kurzstudiengänge). *

The WR estimated that by 1980 45 to 55% of the corresponding age-group will complete upper secondary education (9.2% in 1968); 25 to 30% of the age-group will continue with their studies, and 20 to 25% will go into employment, with training mostly concentrated in terms of their jobs. Thus, the WR assumed that by 1980 25 to 30% of the age-group will enter comprehensive institutions of higher education. The majority of these students will complete the first degree in two to three years; 5 to 6% of the age-group will undertake 4-year courses; an equal number will be enrolled in 4 to 6-year courses; and 2 to 3% will have to be provided with preparatory courses (Aufbaustudium) to help them qualify for a particular course of higher education.

Expansion of existing institutions of higher education (IHE's) cannot alone satisfy the demand for additional places. Consequently, the WR recommended that at least 30 new comprehensive IHE's must be established by 1980. Staffing will more than double (from about 50,000 in 1969 to more than 100,000 by 1980). Expenditures are likely to rise prodigiously, as the following table shows.

These forecasts call for an increase in the share of education as a whole in the GNP from 3.3% in 1969 to 6.2 - 8.1% in 1980, with the specific share of expenditure on IHE's rising from 1.0 to 2.4 - 2.9%. Nothing can underline more sharply the bold expansionist thrust of the WR's plans for higher education than these clearly stated proposals to nearly treble Germany's share of the GNP to be devoted to higher education in the space of one decade.

Hochschulen. The aims of integrated comprehensive organisation are to give parity of esteem to the different varieties of post-secondary study, to facilitate a closer connection between theory and practice, and to make possible greater transferability (Durchlässigkeit) of students and staff within higher education.

* It was for this reason that the Association of University Assistants (Bundesassistentenkonferenz) condemned the WR's plans as leading not to an "expanding", but to a "contracting" system, in spite of the WR's forecasts of impressive increases in enrolments, staffing, and finance. Unfortunately, too, virtually every group towards the left of the political spectrum attacks the concept of Kurzstudien. They see it as a key aspect of what they view as attempts to reform the universities in the interest merely of greater technological efficiency.

ESTIMATED EXPENDITURES ON EDUCATION IN GERMANY[1]

Billion DM

	SCHOOLS	IHE's	TOTAL
Current expenditures, 1969 ..	14.1	5.8	19.9
Financial requirements, 1980			
in constant prices	18.8 - 24.9	14.8 - 19.0	33.6 - 43.9
in current prices	43.5 - 58.6	26.8 - 33.5	70.3 - 92.1

1. Wissenschaftsrat, Recommendations by the Science Council for the Structure and Expansion of Higher Education after 1970. Presented in June 1970, p. 24.

June 1970

The Federal Government document entitled Bildungsbericht '70 was presented to Parliament and the public. This document makes explicit the Federal Government's policy targets in the field of education. The report, which includes short statements about the present state of the different branches of education, concentrates upon the "proposed objectives of the Federal Government".

Herr Leussink, Minister for Education and Science, introduced the report as the Federal Government's "first contribution... to a joint educational planning policy with the Länder within the framework of Article 91b of the Grundgesetz".* It articulated the educational conception of the Federal Government and was produced independently of the 11 Länder. In this connection Herr Leussink's preliminary remarks should be noted carefully:

> "By outlining our own (the Federal Government's) objectives, the direct responsibility and competence of the Länder for education cannot and should not be touched. The sections of the report which refer to the areas of competence within the Länder must be regarded as a federal contribution to the comprehensive conception of educational policy which the Federal Government, within the framework of its joint responsibility for educational planning, intends to introduce into the forthcoming consultations between the Federal Government and the Länder".**

* Deutscher Bundestag, 72. Sitzung, 14th October, 1970, p. 4012.

** Bildungsbericht '70, p. 15.

The report deals with all levels of education from pre-primary to the post-tertiary stage in the proposed reform, and is based largely upon the recommendations of the Education Council and the Science Council. Three distinctive features of the report are its clear endorsement of:

- universal pre-school provision for three- and four-year old children whose parents desire to enrol them, and reduction of the elementary school starting age from six to five years old;
- an overall internally differentiated system of integrated comprehensive schools, indicating an explicit break with the traditional tri-partite school system;
- a system of integrated overall comprehensive institutions of higher education, thus breaking with Humboldt's concept of universities as schools for the cultivation of the élite.

In the opinion of the Federal Government, educational policy should no longer be conceived in a social vacuum; instead, the schools must assume certain definite social obligations. The Federal Government has, in this document, laid its educational cards on the table, enunciating clearly the goals for education it wishes to achieve in the next decade. It is an avowedly "political" document, in that it sets out the basic premises upon which it believes educational policy should rest: modernizing the educational system to fit the new economic, social, and political conditions in which the country now finds itself; maximizing access to education for each citizen, young and old; reducing significantly the inequalities of educational opportunities that continue to hamper many distinctive groups in the population; and remodelling curricula and school structures so that individual talents and abilities can find more opportunities for development than at present.

The Bildungsbericht '70 refers freely to the experience and achievements of other countries in the field of education, in order to make the point that, in many important respects, Germany is lagging seriously behing its neighbours. The Federal Government's statement has emerged as a "maximum" uncompromised programme, in comparison with the other programmes for educational development that have appeared recently, and have been prepared by bodies representing a variety of authorities. Though every one of its proposals has figured elsewhere in an official, or semi-official, document, it succinctly brings together in a single package the most advanced official thinking on the future of education in Germany.

Unfortunately, what has most caught public attention and Press notice is the estimates of future costs of education. These estimates are based closely on the figures elaborated by the Bildungsrat and

Wissenschaftsrat. The figure of 100 billion DM as the cost of education in 1980 has become a political football and, unfortunately, it was assumed that this enormous figure was "the cost of educational reform". Naturally, this is far from the truth. Orderly expansion of the educational system along its present lines, rising costs as teachers and other staff secure salary increases, and the seemingly inevitable trend to inflation of the price-level would probably account for four-fifths, at least, of the increased bill for education in 1980, leaving only about a fifth, or less, of the extra costs to be ascribed to reform. However, such analyses often seem to be difficult for the public to grasp and too unexciting for a great portion of the Press to print. The result has been a widespread and unfortunate exaggeration in Germany of the true money costs of school reform.

In October 1970, the Bildungsbericht '70 was the subject of a full-scale debate in the Bundestag, and each of the political parties presented its position on the different subjects raised by this document. The CDU critics focused their main attention upon the proposals to introduce Gesamtschulen at the secondary level, and it is this topic that continues to be a source of deep disagreement between the two major parties.

July 1970

Once the Federal Government had been empowered by the changes in the Grundgesetz to play a role in formulating educational policy, and as soon as the Bildungsbericht '70 had appeared, setting out the Federal Government's own programme for education, the key question for educational policy-making and planning became one of implementation. Hence the establishment of the Bund-Länder-Kommission für Bildungsplanung.

The first meeting of the Commission was held in July 1970. May 1971 was set as the target-date for submitting the first long-term educational plan and budget to Bund and Länder authorities. That target has not been achieved, but at the time of our visit (June-July, 1971) it appeared that final drafts of the so-called Bildungsgesamtplan and Bildungsbudget would soon be made public. The work of the Commission and its subcommittees has centred on defining agreement where that has been possible; and, where not possible, on stating as clearly as possible the majority and minority views on the question. It should not be assumed that the Commission acts merely as a vehicle for airing differences of view on educational policy between the Bund Government on the one side and the Länder governments on the other side. There are some fairly deep divisions of opinion on certain questions among the Länder themselves; in addition, within the Bund, the Ministry of Labour and Social Affairs sometimes voices a view that does not accord

with that of the Ministry of Education and Science, and in Germany there is the normal tension one finds everywhere between ministries of education and ministries of finance. Hence, the Commission provides an arena where many different viewpoints on specific questions of educational planning can find expression and reconciliation or, if that is not possible, clear statement of disagreement and the alternative courses proposed.

As might be expected, the differences of opinion between those who by and large are proponents of the Bildungsbericht and those who want to preserve the status quo, or who are in favour of rather "careful" and small changes, have been focused in the Bund-Länder-Kommission, where there has been a split along party lines.

Sharp differences of views on the following points have emerged in the deliberations of the Commission:

1. The organisation of pre-school. Should its control and financing be private or public? Should the first year of regular school be designated a Kindergarten or a pre-school year? This is apparently a matter of prerogative (Zuständigkeit), for on the decision will turn whether the Kultusminister or the Sozialminister will be in charge.

2. The introduction of the Gesamtschule. The Bildungsrat proposed extensive "experimental" activities for trying out a variety of models, whereas the Bildungsbericht envisages a single model for the whole country in the form of an integrated Gesamtschule. The CDU is in favour of a long period of experimentation and it is arguing in favour of applying pedagogical criteria to evaluate the Gesamtschule ("standards" must be maintained, quality must be preferred to quantity). The SPD and the FDP perceive of the Gesamtschule as a powerful vehicle of social change; the CDU argues in favour of reforms that will increase possibilities of transferring pupils within the existing secondary school system (more Durchlässigkeit). The structure of the Förderstufe (orientation grades at the beginning of secondary school) is another issue on which CDU and SPD (plus FDP) differ.

3. The curriculum of the 10th school year. Should it be a year of fulltime schooling with a preponderance of general education content or should it be partly vocational?

4. The structure and curriculum of Sekundarstufe II (the upper grades of the secondary school) are also a political issue of great importance. To what extent should one try to integrate vocational and general programmes and should such an integration be preceded by a long period of experimentation or not?

The SPD wants changes to take place almost immediately, whereas the CDU asks for time to experiment.

5. The training of secondary school teachers is another issue. Should they as a rule be prepared to teach one or two subjects? The proposed categorization of teachers by grade-level, rather than by type of school, as at present, is also a source of some contention.

6. The CDU opposed rapid structural changes, designed to introduce Gesamtschulen quickly.

7. Regarding the financing of education, different bases have been proposed for sharing tax revenues between the Länder on the one hand and the Federal Government on the other.

It can be a matter of no surprise that such quite fundamental differences of view have emerged during the BLK negotiations and discussions. These differences reflect genuine disagreements among and within Länder, that are long-standing and often deeply-rooted. The BLK will stand or fall on its ability to bring together the several sides on most of the disputed matters, to accommodate the interests of the nation as a whole as well as the interests of each region. In trying to accomplish this, the BLK has an unenviably difficult task, but because the need for planned comprehensive new approaches to education are so necessary in Germany, we cannot believe that the BLK will fail in its work.

IV

THE GOAL: MODERNIZING EDUCATION

What is the aim of this furore of reform discussion and debate? What kind of education is it trying to bring forth? One might give many answers, pointing to the several foci of reform: extending pre-schooling, lowering the beginning age of compulsory schooling, raising the leaving age, renovating curricula at the primary and secondary levels, introducing orientation grades at the beginning of secondary schooling, devising comprehensive schools and universities, rethinking vocational education and training, providing financial aid to senior secondary pupils and students in higher education, remodelling teacher training, and so on. But these separate programmes appear to the examiners to be merely the means for achieving a larger goal, which is nothing more nor less than the modernization of education in Germany.

Such modernization is, perhaps, as much, if not more overdue in Germany than in most other highly industrialized countries, for the breakneck economic growth of the country has gone forward with little fundamental change of the educational structure. Since the 1930s the agricultural sector of the economy has shrunk, the service sector has expanded massively and industrial organisation has been revolutionized, yet education has remained virtually unchanged in its spirit and its forms. The German population is becoming rapidly more urbanized, and more women, and particularly more married women, are in the labour force. The pressure of demand has reduced unemployment to exceptionally low levels and, by making it very difficult to recruit enough German nationals for a variety of heavy manual and/or menial jobs, has promoted the employment of over 2 million foreign workers.

The consequences for the social and educational realms are inevitably severe. Many assumptions about what kind of education is suitable, for whom, over what period, using which methods, and to serve which ends, that were all perfectly tolerable perhaps 40-50 years ago, are now quite outmoded. The education of rural youth, and of girls,

attitudes that assume that education is a once-and-for all process associated inevitably with schooling during youth - all are overdue for change. Workers at all levels of skill need to be equipped with the knowledge and attitudes which will allow them to cope effectively with frequent and rapid changes in the technology they will use in their jobs. No longer can a young man assume that he will learn to do his job once in his lifetime, and that will be that. His education, both in school and on the job, must teach him how to learn new methods. Moreover, many of these new jobs require workers to respond imaginatively and responsibly to circumstances that cannot be foreseen, and not just to know how to obey simple, straightforward procedures laid down in an unchanging book of rules. The kind of education provided by the schools has to fit these demands; an undue emphasis in education on obedience, response in accordance with rule-of-thumb methods, and limited development of the imagination has become severely dysfunctional.

In the past, Germany, like all other countries, has relied on the negative sanction of high unemployment rates to discipline workers. That sanction has been virtually removed in the post-war years. German employers, as elsewhere, now need workers who, in the main, are motivated to work at their best level in response to positive internal, rather than negative external, sanctions. If such people are to be available in sufficiently large numbers, the school will have to play an important role in their creation. But this means the schools themselves will have to change in many respects. At present, in their atmosphere, their goals, and their organisation they fit more nearly the older, more primitive, early capitalist economic scene. Authoritarian teachers prepared the child for authoritarian employers and supervisors; drill methods of instruction conditioned him for the repetitive work to come on the farm, in the factory, or at the office; and the closing of chances for secondary and higher education to most of the population reflected the actual paucity of jobs requiring such skills. As the work-place becomes less authoritarian, and as work itself becomes more complex, requiring ever higher levels of skills from more and more people, the schools can no longer continue along their old lines, however successfully they may have performed in the past - as indeed in Germany, they did.

Overshadowing, perhaps, even these powerful economic factors is television. Its graphic power, its immediacy, and its universal presence have demoted the school from its former predominance as the single most important conveyer of knowledge to most people. Children, who may once have found the schoolroom a relatively exciting place, where they could escape from the tedium and humdrum of home or farm, now view the school and the teachers as inevitably less stimulating, less rich in knowledge, less immediate and, above all, less professional than the television screen. Schools cannot continue to

act as though television did not exist. It does - along with a host of other electronic devices that must be taken into account, not only in building new curricula and devising new teaching methods, but also in planning the future form and role of the very institution of school itself.

In all these ways, the separate proposals for reform can best be understood as parts of a single attempt to reshape a basically nineteenth-century system of education to fit the needs of the modern society that Germany has become.

What are the characteristics of a nineteenth-century system of education? And how is a modernized system different? An understanding of the elements of the old approach to education will enable us to grasp the necessity for the new models now being formulated by so many educational authorities in the Federal Republic.

1. The elements of the traditional approach to schools

The following attempt to spell out the most prominent characteristics of an old-fashioned school system is not to be regarded as a criticism of education in Germany, for these features are to be found in most European school systems. Nor, of course, is it intended as a description of the educational system in the Germany today. Rather, it serves as a paradigm, to establish typical leading features.

a) In the traditional school system the class-structure of society is closely reflected in the structure of education. In particular, two parallel, but mutually quite self-contained, sets of schools are maintained. One set serves the educational needs of the leaders, the other serves the led. There is little, if any, chance of moving from one system to the other. Admission to the university is open only to those who have come through the whole length of the élite system, which offers a highly academic education to perhaps 5 to 10% of the age-group. Parents often pay tuition-fees, and children who enter first grade will normally be expected to continue through to graduation after 12 or 13 years, and then go on to university.

For the remaining 90 to 95% of the nation's children, 6 to 8 years of compulsory elementary education are provided, but this is regarded as terminal schooling for virtually all. Completion of elementary education in this track does not lead to the secondary level of the élite system; still less does it provide the basis in the future for admission to any form of higher studies. At best, it makes the child eligible for apprenticeship training. Elementary education is tuition-free.

b) Teachers in the élite system are normally university-trained, while those in the mass elementary school system are trained at a lower level and for shorter periods in teacher training colleges. They are not eligible for teaching positions in the élite system, and they are paid according to a separate, lower salary scale.

c) Not only does the social standing of his parents mostly determine a child's educational chances, but schooling and chances in later life are tied closely together in the other direction, too. The kind of schooling a child receives virtually fixes the level of job he will be able to get and keep and, hence, determines his own eventual status in society.

d) Curricula offerings of the schools, methods of instruction and examinations are rigidly set. Within each region, what each type of school teaches and how it teaches it tend to remain constant over time, and from child to child. The child is delivered to the school to be "moulded"; the school is expected to provide a single offering of educational opportunities, to which the children's individual talents, inclinations, and interests must then adapt.

e) The main business of the school is viewed as instilling into children certain highly specified quanta of information. There are fixed syllabuses to be got through each year; there are regular examinations to test the extent to which children have absorbed the syllabus content and can reproduce it on demand. Promotion through the system depends upon adequate performance at these examinations. Those who fail must repeat the grade.

f) In so far as education goes beyond these cognitive aspects and seeks to develop attitudes, it tries to inculcate attitudes that contribute to the stability of the existing social and political order: acceptance of the justice of the presently operating social system, obedience to those in authority, and support of some fairly limited notions of patriotism. In this spirit, many of the schools, especially those for the masses, are provided by the churches.

2. The elements of a modernized school

A modernized system of education is one that would reverse each of the major elements of the typical nineteenth-century system outlined above:

a) As far as possible, the school system provides a common set of institutions for all children, no matter what their social origin,

religious affiliation, sex, place of residence, and career aspirations. Provision for individual talents and study preferences is made by means of guidance and differentiation within schools, and not by selection of children into different school types with different prestige labels. Differentiation tends to be delayed as long as possible in each child's school career.

b) The teachers for all schools, primary and secondary, are expected to be university-trained in a subject-area, in psychology and pedagogy, and in the relevant social sciences. As part of their training they all undertake a great deal of supervised teaching-practice in the classrooms, and continue with in-service training as part of their normal career development. All teachers are on a common salary scale; it is not assumed that teachers who deal with younger children need less education, or are doing a less valuable job, than those in secondary schools; nor is it assumed that teachers of academically gifted children need less pedagogical training than those teaching other children.

c) Schools do not serve sequentially to close off youngsters' opportunities by selective examinations, differentiated admissions, and separate curricula. On the contrary, the explicit aim of the schools is, by imaginative guidance, to extend children's awareness of the manifold possibilities of career and life-long learning open to them by virtue of their membership in a modern state dedicated to the development of the potentialities of its people. Schools, employers, and parents are encouraged to try to think of a child's life-career as one that keeps open final choices as long as possible, and never to assume that a particular career decision is forever irrevocable.

d) Modern schooling begins with the understanding that children differ from each other: some learn slowly, others faster; some are attracted to one type of activity, others to another. Hence, the school curriculum is not a single strait-jacket into which all children must be forced according to a prescribed time-schedule. Along that route lies the certainty of alienating masses of children from the business of learning, as well as the responsibility for having many of them branded as "failures" early in life, simply because they could not, or would not, jump an array of artificial hurdles placed in their path. Instead, both curriculum and instruction provide a great deal of flexibility and choice in both content and timing. "Individualization" is the common label describing such practices.

e) The main business of the school is seen as fostering in each child the skills and the desire to continue learning throughout his life. The primacy of specific content is played down. The goal of education is not to stuff a young person's head full of ready-prepared facts and

opinions, but to help him perfect his ability to work things out for himself.

f) In this spirit, the schools and universities do not exist in order to purvey the dogmas of any particular group, whether religious or political. A modernized schooling does not seek to capture the minds of its students on behalf of a particular ideology. On the contrary, it teaches the arts of critical reflection, uncoerced decision, and toleration for all views (though not necessarily for all actions).

Of course, any attempt such as we have just made to capture the elements of a traditional and a modernized system of education runs the risk of portraying two stereotypes, neither of which exists anywhere in any given school system. In no way do we wish to imply that the details of German education now or in the past are adequately described by such a sterotype. However, its spirit is caught by this outline, and such a schematisation does help to define the outer limits of the old and the new in educational policy, and identifies the region between the two limits that the schools in Germany now occupy.

In contrast to the far-reaching reforms in education that a modernized system would imply, there are only a few important respects in which education has changed in Germany in the half-century since the beginning of the Weimar Republic:

i) During the Weimar period, most Länder established a common 4-year primary school (Grundschule) for all children, irrespective of whether they intended to proceed afterwards into secondary education, or remain in the higher elementary school. Thus, selection for élite institutions was postponed until the child reached the age of 10.

ii) An intermediate secondary school (the Realschule) was provided. Its status lay between the upper elementary school and the prestigious Gymnasium. Completion of the Reaslschule did not automatically qualify a youngster to go on into the upper grades of Gymnasium, but by making prodigious efforts to catch up on lost work in Latin, mathematics, and perhaps one other foreign language, transfer was theoretically possible.

iii) A ninth year of compulsory schooling is now general.

iv) Fee-paying was abolished in the 1950s.

v) In the last decade, churches have had to relinquish their remaining control over schools and teacher-training. No longer are they entitled to receive public funds for providing denominational (konfessionelle) schooling.

But, apart from these changes, the basic characteristics of the school system in Germany have remained unaltered. There have been a host of minor changes and locally-sponsored reforms by individual Länder. Indeed, the entire work of the Kultusministerkonferenz since its establishment in 1949 can be viewed as an attempt not only to remove some of the more inconvenient disjunctures between the 11 separate educational systems in Germany, but also to persuade the more reluctant Länder in many instances to follow the example set by more adventurous Länder in modernizing their schools.

The efforts of the KMK have indeed spurred some competition among the Länder, as far as educational reform is concerned. While that work has undoubtedly made some progress, the rate of change has been decidedly slow, and modernization, where it has occurred, has come in a piecemeal fashion. Thus, in Berlin there is now the beginning of a comprehensive school system; in Hesse, the comprehensive school has been adopted in principle; in other Länder, experiments with comprehensive secondary organisation are being made; in all states, some efforts, crowned with limited success, have been made to increase possibilities of transfer (Durchlässigkeit) within the existing types of secondary schools; experiments are beginning with all-day schools, so that children whose home circumstances are disadvantageous shall not suffer quite as much in their school chances as they do at present; here and there the pedagogical Hochschulen in which primary school teachers have received their training are being incorporated into the university structure; and the so-called zweiter Bildungsweg (second road to education) has been somewhat broadened, so that young people of post-school age get a chance to acquire university entrance qualifications through part-time, after-work study.

Yet, in the main, these modernizing initiatives and experiments have only a local or, at best, regional impact. They cannot be described as the effective major nationwide programme for the reform of education in Germany that is overdue.

One can say that a modernized system of education will have at least three major sub-goals. First, it will be designed to extend multiple educational opportunities to the entire population, and not allocate just single and carefully apportioned opportunities to certain sub-groups. Second, it will endeavour to maximize the likelihood that the education provided fits the varied characteristics of the young people to be helped, and not the other way round. Third, its content and style will express the recognition in practice that education is not a matter of authoritarian inculcation of knowledge, but of providing young human intellects and sensibilities with opportunities for development which would tend to continue throughout a life-time. Unfortunately, under all three counts the actual performance to date of the German's educational system must be judged as backward.

The first sub-goal is served by attempts to equalize educational opportunities, and we heard the term Chancengleichheit over and over again from our respondents. An open structure that permits a great deal of transferability within the system (Durchlässigkeit) is also important, as well as opportunities for catching up later what one missed earlier in life. Hence, the value of the concepts "recurrent education" and "éducation permanente" in refashioning the schools.

The second sub-goal is served by curricular reform, a revolution in teacher attitudes, and a more financially-generous treatment of education than has characterized the history of most countries, including Germany, when it can be shown that more resources are really necessary. The third sub-goal is approached by trying to build new attitudes and mechanisms so that young people participate in the decisions, large and small, that affect their school lives. This last approach is summed up in the second refrain we heard on our journey: Mitbestimmung (participation). Indeed, the call for Mitbestimmung is not confined solely to university students. Teachers, too, are seeking greater power to participate in educational policy-making. This is especially so among young teachers and teachers in training, who are conceiving of themselves as agents of social, as well as pedagogical, change. Moreover, the time may not be too far distant when local groups of parents and citizens urge the several Länder governments to delegate to the localities more of the powers over the schools that have so far been kept tightly centralized in Länder capitals.

Few modern nations, indeed, have made substantial progress to date towards the second and third goals just mentioned. They are exceptionally difficult to achieve in practice, for they require major changes in attitudes and skills of large numbers of teachers, educational administrators, parents, employers, politicians, and even children. The need for changes along these lines is recognized as widely in the Federal Republic as perhaps anywhere else in the world. If the actual realization of reform has been slow, the Federal Republic can find some comfort in the fact that it has a great deal of company among the other nations.

However, with regard to the first goal, that of extending (and perhaps making more equal) educational opportunities, Germany has exhibited a decidedly worse performance than many comparable countries, and it is to remedy this particular shortcoming that so much of the current reform efforts are directed. As the term Chancengleichheit crops up almost everywhere in discussions of educational policy-making, we should perhaps consider more closely its significance in Germany today.

3. Chancegleichheit (Equality of Educational Opportunity)

The phrase "equality of educational opportunity" is heard not only widely in Germany but elsewhere in the world, too. England, France, Sweden, and, above all, the United States have sought to base much of their recent educational policies upon this principle. Since the establishment of the OECD the principle has been a focus of attention in the organisation. The 1970 OECD policy conference had equality of educational opportunity as one of the major items on its agenda, and a Strategy Group has been established to deal with the problem.

The principle, "equality of educational opportunity" has the attraction not only of wide currency, but also of prima facie congruence with contemporary economic, social and political forces. The need to tap and utilize reserves of talent if economic growth is to be sustained; the ever increasing reluctance to tolerate social systems in which a young person's future is determined largely by the social status of his parents; the urgent need to create an informed and self-reliant electorate so that democracy may survive - all these desiderata, and others, conspire to promote the importance of equality of educational opportunity. The provision of education is tantamount to the provision of changes to serve society at a higher level and to secure some of society's higher rewards, both monetary and non-monetary. The argument that these chances have been allocated unequally in the past, but must now be allocated more equally, is virtually incontrovertible from any standpoint other than that of unshakable belief in the beneficence of hereditary privilege.

Unfortunately, the term "equality of educational opportunity", without qualification or explication, begs more questions than it answers. Because of its ambiguities, it is exceptionally difficult to apply in practice as an operational guide in actual educational decision-making. Chancengleichheit, as the principle of equality of educational opportunity is termed in Germany, can be consistent with any one of a half-dozen, or more, ways of organising the school system, and the principle therefore provides the politician, voter, or educational decision-maker with no clear guide for choice among the many alternative models that may be presented to him.

An analogy may be helpful in making the problem clear. Let us for a moment visualize the school-system as a race-course and the children as runners to be put through their paces on the track. (As a high official in the Federal Ministry of Education and Science pointed out to us, the German word for race-track (Laufbahn) is also used to express the English word "career", so the analogy we are making may not be altogether inept). There are, then, at least three basic models of the

race-track that we might imagine, each of them consistent with somewhat different, but nonetheless authentic, interpretations of the principle of equality of educational opportunity, and each of them suited to a different social order.

The first model is adapted to the needs of a society in which little social or economic change is expected to occur and in which demand for the kinds of skills taught in schools is relatively low. In this model, most children do not even get a chance to compete on the track, for the elementary schools provide mainly terminal courses. Although most children of the privileged classes will go to secondary school, only a very few, and then only the very ablest, children from the lower orders of society will receive their "starting ticket" for the race, admission to the secondary school. An essential feature of the model is that the secondary educational race is designed as a "fair" competition among a limited group. Once admitted, all children who go through secondary education must submit themselves to a single curriculum of studies, and a common leaving examination. Since the capacity of the hurdles is limited, only the spriteliest get over; the rest fall by the wayside. Children may, or may not, be granted more than one chance to jump the common set of hurdles. If they are, this may reduce somewhat the selectivity of the system, and the penalties imposed on the slow learner from a privileged home, or on the bright child from a disadvantaged one. But whatever the arrangements in detail, the essence of the model is that it is designed to select and train a relatively small number of young people to man the limited number of high level positions in society. In this spirit, it may be best characterized as a school system dedicated to the principle of providing a few children with "equal opportunity to fail", its main function being to identify and promote the academically talented.

The second model fits a society dedicated to increasing technical efficiency, mobilizing reserves of talent, and developing in the labour force a ready willingness to adapt to change. Far from limiting avenues of personal and educational advance, this type of society seeks to multiply them; all kinds of talent that assist in achieving certain fairly well defined social goals (often cast in terms of economic growth) are in strong demand. The schools have a key role in providing them in the numbers and variety needed. There is still a race-track, but the aim now (not always realized perfectly in practice) is to give every child a "starting ticket". The nature of the competition, too, is different, for in this model there is not one common track to run and a single set of hurdles to jump, but the possibility of choosing which particular race-track to compete on, from an array of different arrangements. Sometimes the various tracks and the hurdles across them are openly assigned different levels of prestige: there is a hierarchically ordered set of school goals against which young people may measure themselves.

In educational terms, an Abitur in the humanities may be ranked at the top of the prestige ladder; followed by a natural science Abitur, then an economics-commerce certificate, then a completed vocational course. Here we have a system that provides formal equality to achieve unequal educational status. A variation on this model would also provide different sets of hurdles, but ones that are not hierarchically ordered. Surmounting any one set confers the same status, rights, and privileges as surmounting any other set. All Abitur-certificates lead to higher education; none is intrinsically better than any other. In formal terms, this system provides equal opportunity to achieve equal educational status.

The last model we shall discuss represents a decisive break with all the previously sketched arrangements. It is designed for a society that has reached such levels of material prosperity and psychic maturity that it can no longer define its goals in the fairly simple terms of material accumulation. The task of the schools is not merely, or mainly, to prepare children for the world of further study or work. And, although workers with skills are still needed at all levels, they are needed not as relatively passive executors of orders relayed from above, but as active participants in the shaping of their jobs, their companies, and their society. Thus, the relevant educational model is one that emphasizes active participation by pupils in school affairs (both pedagogical and organisational); and the de-emphasizes competition and develops co-operation. Not only does this model lower, or virtually abolish, the hurdles, but the competitive characteristics of the track are removed. It now becomes a sheltered area over which the runners try out and develop their varied paces, styles, and powers. In formal terms, the system now tries to provide equal opportunity to develop individual talents, many of which will, of course, relate to society's need to get the world's work done, but not a few of which may serve primarily to make society a more colourful, humane, or just more interesting place to live in. If there are, in the end, "winners" and "losers", it is not because the track has been consciously designed to bring that about. It is simply that children inherit, and develop, different powers at different levels, and society, in its wisdom or foolishness, will value these powers differently and so provide differential rewards, tangible and intangible, to their possessors.

As we have indicated, each of these models is consistent with a possible interpretation of the principle of equality of educational opportunity. Moreover, recognizing that some people interpret the principle as requiring compensatory treatment for the less privileged (in our analogy that might mean lending slower children a helping hand along the track, or giving them an earlier start), we see that the number of models can easily be doubled.

In fact, the capacity of the basic race-track analogy is so great that the array of proposals now being made in Germany for the reform of education can comfortably be contained within the range of models cited. At one end of the spectrum are the minimum reformers who, while recognizing the injustices of the present system, wish to disturb it as little as possible in its essentials. Mostly they are content with the "minimum" version of model 2 (there are very few indeed in Germany who subscribe, at least in public to model 1): they want a variety of hierarchically ordered hurdles in their ideal educational system, and usually demand early application of guidance and testing techniques, so that children shall be directed as soon as possible towards training to jump the hurdles that are considered "right" for them.

Most practical reformist thinkers and politicians are to be found elsewhere. This group includes, above all, the Federal Ministry of Education and Science, whose views are detailed in the Bildungsbericht '70. In Germany today they seem to have set their sights on realizing the second version of model 2: they want a school system that provides multiple, equal hurdles, with multiple opportunities to surmount them. If they must bargain something away, it is the idea of more than one opportunity for the child to jump, rather than the basic concept of multiple and equal hurdles, that they will be inclined to sacrifice.

While model 3 can be discovered in the writings of some educational reformers, it simply does not appear to be practical politics in the Germany of the 1970s. There are very few people as yet either inside or outside Germany who can accept a system such as the Swedes are now putting into operation, whereby a child goes from kindergarten to university entrance without entrance or leaving examinations at the doors of the primary, secondary or higher schools; or who can envisage a system in which children become partners in the educational enterprise with their teachers, helping not only in the day-to-day running of their school, but also in the task of teaching children younger than themselves. Research findings and experience which might demonstrate the greater effectiveness of education along these lines are not sought out when they do not meet the society's predispositions. Ruling out this radical approach, the substance of educational policy-making in Germany today may usefully be interpreted as a concern for the dual questions: according to which model of equality of educational opportunity will each Land choose to base its school system? And how far can the Federal Government persuade the Länder to move towards realizing an advanced version of model 2?

V

SHORTCOMINGS THAT DEMAND REFORM

In spirit and structure, schooling in Germany remains old-fashioned, as it does in several other European countries. In an age when mass secondary and higher education are being rapidly developed in the other advanced states, Germany has made do with a system that until now has effectively shut off some 90% of the children from the possibility of entering university-level education; that experiences great difficulty in remodelling curricula to suit modern conditions; in which teachers appear to follow authoritarian models in their classromm behaviour; and that is bureaucratically administered, lacking essential minimum elements of public, parental, teacher and student participation in decision-making.

In this part of our report we shall concentrate on the shortcomings that are grouped most conveniently under the label: "inequalities of educational opportunity", for this is where the performance of the German educational system in the last 20 years has been most at variance with that of comparable countries. In singling out this group of short-comings for particular treatment, we do not mean to suggest that other kinds of problems are of lesser importance, for they are not. It is simply that inequality of educational opportunity is more clearly evident, more easily identified and measured, and at the same time can probably be more easily subject to some measure of remediation in advance of extensive reforms of curricula, teacher-behaviour and expectations, and participation of parents, citizens, and students in decision-making. However, for the remaking of education, Germany will undoubtedly have to begin coming to grips with these latter more long-term concerns, if immediate plans and proposals to increase educational equality are to take on substantive reality.

The works of Ralf Dahrendorf, Hansgert Peisert, Friedrich Edding and R. von Carnap*, among others, in the early and mid-1960s, together with more recent data, show that inequality of educational opportunity has been widespread in Germany and is still a persistent feature of the socio-educational landscape. In our discussion below, we shall touch upon only some of the most evident manifestations of inequality.

a) In Germany, the obligation to attend school begins on the child's sixth birthday. Because admissions take place only once a year, many children who are actually over 6, but not yet 7, are not in school. For example, in 1965 only 28.6% of the 6-year-old children were in school (cf. France and Belgium, both 100%; and the Netherlands, 98.7%).** Consequently, pre-school provision in kindergartens is of especial importance in Germany, to ensure that during their earlier years, children from disadvantage homes, particularly, are given extra help. Unfortunately, only 36.0% of all 3-5 year old children in Germany were enrolled in kindergartens in 1969. (In 1959, the proportion of such children was 32.0%, so that not a great deal of progress has been made in the last decade.) It is indeed ironic that the nation that produced Friedrich Fröbel, the founder of kindergartens, should have left it to other nations, like France, to develop them adequately for most, if not, all children. Moreover, because 4 out of 5 kindergartens in Germany are provided by non-public organisations, and hence must charge fees, working-class parents are less able to enrol their children. Moreover, no special effort has been mounted to extend pre-school provision in the countryside, where costs per child are much higher than in the towns. Hence, the child from a poor farming family is also relatively disadvantaged in terms of receiving the stimulation that is a prerequisite for coping with the regular school curriculum.

b) All children go to a common primary school (Grundschule) for their first four years, where there is a single curriculum for all. But at the age of 10, before the beginning of Grade 5, most children are then sorted into three types of school:***

* See, inter alia, Hansgert Peisert and Ralf Dahrendorf, Der vorzeitige Abgang vom Gymnasium. Studien und Materialen zum Schulerfolg an den Gymnasien in Baden-Württemberg, 1953-1963. (Villingen: 1967); F. Edding and R. von Carnap, Der relative Schulbesuch in den Ländern der Bundesrepublik (Frankfurt-am-Main: Hochschule für Internationale Pädagogische Forschung, 1962); J. Hitpass, Einstellungen der Industriearbeiterschaft zu Höherer Bildung. (Ratingen: 1965); S. Grimm, Die Bildungsabstinenz der Arbeiter. (München, 1966).

** Bildungsbericht '70, Table 12.

*** Some Länder have established comprehensive secondary schools, but they are at the moment in a very small minority.

- Gymnasium, a 9-year school, preparing students for the Abitur and entry into higher education; Realschule, providing an education through 6 grades (cf. the 9 grades of the full Gymnasium course), according to a less formidable curriculum, and preparing students for entry into white-collar work; and
- Hauptschule, (or upper-elementary school), providing a 5-year course, on the basis of a still less demanding curriculum, and preparing students for entry into work at the lower levels of skill and responsibility.

Thus, the very structure of post-primary education mirrors the major social class and occupational divisions of German society: at the top a small, though rapidly expanding managerial, professional and public service élite; in the middle a substantial class of middle-level technicians, officials (mittlere Beamten), and managers; at the bottom, a large number of agricultural, industrial, and service-sector workers.

c) Within the tripartite secondary school system, the greatest prestige attaches to attendance at the modern languages and natural-sciences Gymnasien; less prestige to other types of Gymnasien; still less to attendance at Realschulen; and, of course, no prestige at all is attached to attendance at Hauptschulen. This hierarchy of esteem mirrors the value-system in society at large, in which the most abstract work, demanding the highest levels of linguistic and mathematical skill, is ranked topmost in prestige; the applied fields come next; and practical work that is often associated with a certain amount of physical labour is regarded as, at best, an unfortunate necessity. The allocation of resources reflects these differences of prestige: more money per pupil is spent in educating students in the higher-prestige types of schools, than in the lower prestige types,* teachers in the Gymnasium have had much longer periods of training than teachers in the other secondary school types,** and class-sizes are smaller. Not only do the students from wealthier homes have more public money spent on their education for each year of their secondary education, but each such student tends to receive a larger total of public educational resources over his school career than do children from lower social levels,

* One pair of figures stands out. In 1967 for Germany, staff costs per pupil equalled 793 DM in Real-and Hauptschulen; 1207 DM (52% more) in Gymnasien. See Bildungsbericht '70 Table 17, page 52. The alternative to such large disparities is not, of course, the application of rigid and unthinking norms of precisely equalized expenditures. Instead, efforts should be made to reduce the expenditure gap by improving facilities for those pupils not enrolled in academically oriented courses, and by attenuating the class-bias associated with admission to the more prestigious curricula.

** Note that in 1968 it cost an average of 3,844 DM to educate a student in a Pädagogische Hochschule (Teacher training college), while university education cost an average of 13,349 DM per student (3½ times as much). (cf. Table B.7,13,2. Background Report).

because length of study is positively related to school-type and social class level.

d) Recruitment into these three types of secondary schools is in fact still linked to the child's social class origin, as measured by the educational and occupational level of his parents, even though selection is conducted on the basis of an ostensibly "objective" measure, such as the level of marks in the main school subjects. * As the Bildungsbericht '70 has so eloquently stated:

> In the primary school, children's attainments are still measured against standards of what is in the final analysis a specifically class educational tradition. These standards are decisive for selection after the fourth school year. Those children who are not encouraged by their parents and environment to adopt the content, forms of expression and standards of this tradition cannot live up to these standards. Thus, the formally equalitarian primary school contributes to perpetuating the social class system. **

Moreover, some Länder, in trying to modify the rather mechanical nature of a selection system relying entirely on marks in school-work, have based selection more and more on expressed parental and student aspirations, thus possibly reinforcing rather than diminishing the class bias inherent in the post-primary schools.

e) If a pupil fails in a main subject, he must repeat the entire year of study. Such grade-repeating is quite common in post-primary schools, and occurs even in primary schools. Figures we received showed the following incidence of grade-repeating:

In Gymnasien : 7.3%
In Realschulen : 5.5%
In Grundschulen : 3.0%

* See the Background Report, Table B.4.2. Clearly, there has been some important progress made in equalizing chances in secondary education over the past decade, but even in such an educationally progressive Land as Nordrhein-Westphalen in 1968, the pupils in Gymnasien were still drawn in the majority from families where the father had a secondary (rather than an upper primary) education. In 1965, when the group designated as "workers" composed 45.2% of the gainfully employed males in the German population over 40 years of age, only 10% of pupils enrolled in the 6th grade of Gymnasien, and 6.4% of those enrolled in the last grade were workers' children. See Bildungsbericht '70, Table 8.

** Bildungsbericht '70, p. 42. The comparative study of mathematics achievement concluded that of all the twelve countries included in the study, Germany had the highest index of social bias in secondary school enrolment and retentivity. "There are ... very few working-class students getting through to the pre-university year in Germany, where the index (of social bias) is at least twice as large as in any other country." Torsten Husén, ed., International Study of Achievement in Mathematics: A Comparison of Twelve Countries, (Stockholm: Almqvist and Wiksell, 1967), Vol. II, p. 114.

The incidence of grade repeating is linked to the social origin of the children, and children from working class backgrounds find it much more difficult to graduate from secondary schools without repeating than do children from more privileged homes.

f) Some Länder are experimenting with a common curriculum for all children in the first two years of secondary school. These two grades are termed Förderstufe - grades in which students are observed and tested, so that the differentiation and selection decision, when it comes at the beginning of Grade 3 of the secondary school, can be made on the basis of more information about the child's achievements and preferences. While the Förderstufe postpones the selection of children into different school types, it does not appear yet to have been developed in such a way as to affected substantially the eventual class bias of recruitment into the different types of secondary school.

g) Inequality of opportunity is manifested not only with respect to social class origin, but also with respect to sex, place of residence, and religion. Girls on average, get less education and receive it in less prestigious types of secondary schools;* and rural children are comparatively disadvantaged in comparison with the school services offered to town children. In the past, too, educational provision in Catholic rural areas was underdeveloped, as compared to Protestant areas.** Though important steps have been taken to remedy this, there is still some truth in the dictum that the educational chances of a daughter from a poor Catholic peasant household are not very splendid.

These inequalities find their expression in the differences in opportunities offered by the different Länder. Thus, while for Germany as a whole in 1968, the proportion of the appropriate age group receiving the Abitur was 9.2%; this index was as low as 7.5% in Bavaria and reached as high as 11.9% in Bremen. The difference of 4.4 percentage points represents a range of nearly 60% between the bottom and top Länder indices.***

* See Bildungsbericht '70, Table 8. The data cited there show that, among other female disadvantages, a girl from a worker's family in 1965 had only half the chance her brothers had of being enrolled in the 6th grade of Gymnasium, and only about a third of his chance of remaining to the end of the Gymnasium course. While there has been significant improvement over the last decade in the proportion of the age-group receiving the Abitur (An increase from less than 5% in 1957 to more than 11% in 1968), the gap separating males from females (about 3 percentage points in 1957), had opened to 4 percentage points by 1968. See Bildungsbericht '70, Graph. 7. In general, girls are under-represented in the Gymnasien (42.5% of total enrolment was female in 1967), though there has been some improvement over the decade (in 1960, the proportion of girls was only 39.8%). See Bildungsbericht '70, Graph. 8.

** See Hansgert Peisert, Soziale Lage und Bildungschancen in Deutschland, (München: Piper, 1967) and Robert Geipel, Sozialräumliche Strukturen des Bildungswesens, (Frankfurt/Berlin: Diesterweg, 1965).

*** Bildungsbericht '70, Graph. 4. See also Bildungsbericht '70, Tables 9 and 10.

h) Teachers, parents, employers, and students place great emphasis on school achievement (Leistung), measured in terms of the students' ability to master certain carefully defined and examined bodies of knowledge. This emphasis on cognitive achievement dominates the criteria used to measure school success. Because this is so, homework plays a very important role in the schooling process. For example, formal homework assignments are commonly set from the first grade of schooling. Hence the great importance for school success of proper home-conditions for the completion of homework. Moreover, the German schools are mostly half-day schools, so that lower-class children (who are more likely to find neither parent at home when they get out of school at about 1 p. m.) will be at a further disadvantage, compared with children from better-off homes (see Diagram 1).

i) The course of study in the Gymnasium, in particular, is an exceptionally strenuous one.* It is not unusual for a student to carry as many as nine or ten school subjects throughout his secondary school career, and formidable amounts of material have to be covered in each subject.** Students from richer families who falter under the pressure of the tightly-packed, fast-moving curriculum often receive extra coaching at their parents' expense.*** In general, poorer families either cannot or will not provide such aid, and their children are therefore withdrawn much more readily from the Gymnasium or Realschule when academic difficulties are encountered. Table 1 provides data on the social origin of pupils in successive grades of the Gymnasien in a Ruhr town in 1963-1964. At the beginning of the Gymnasium, children of fathers in Groups 1 and 2 (university graduates and higher level employees who are not university graduates) represent 30% of the total enrolment, while the children of fathers in Groups 4a and 4b (foremen, qualified and other workers) represent 38% of enrolment. The share of the former in total enrolment grows steadily, as the share of the latter falls, until by the end of the Gymnasium course, 61% of the pupils

* In 1969, 1 out of 5 students enrolled in Grade 11 of the Gymnasien in 1967 failed to obtain an Abitur certificate at the end of Grade 13. (Background Report, Table B.4.3.).

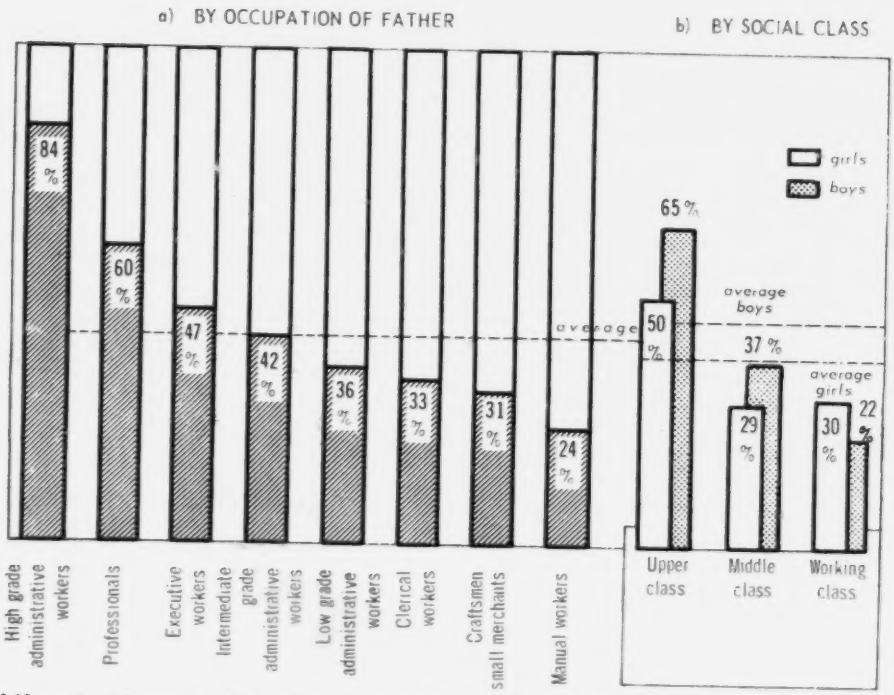
** A Rahmenvereinbarung (outline agreement) was adopted by the KMK in September 1960, and dealt with reduction of the number of subjects that had to be studied in the last 3 years of the Gymnasium. Unfortunately it has by no means solved the problem of overloaded curricula. For example, according to recommendations of the KMK (made in June 1966), the curriculum of the normal form of the Gymnasien requires a child in Grade 8, aged 14, to carry all of the following subjects: German, mathematics, English (or French), Latin, history, geography, biology, physics, shop-work, religion, music, art and physical education. (See Richtlinein und Empfehlungen zur Ordnung der Unterrichts in den Klassen 5 bis 11 der Gymnasien, Adopted by the KMK, 14-15 June, 1966.)

*** The Bildungsbericht '70 makes this point in very strong terms: "Expensive extra lessons are necessary on a frighteningly large scale in order to help a growing percentage of children get better marks or prevent them from having to repeat a year".

Diagram 1

EXAMINATION SUCCESS

SUCCESS RATES AT THE ABIT'JR EXAMINATION



1/5 sample of Gymnasia in Baden-Württemberg. 13,000 pupils. 1955/56-1963/64.

Source : Hansgert Peisert and Ralf Dahrendorf, *Der vorzeitige Abgang vom Gymnasium. Studien und Materialen zum Schulerfolg an den Gymnasien in Baden-Württemberg, 1953-1963.* (Villingen, 1967).

Table 1. SOCIAL ORIGIN OF PUPILS IN DIFFERENT GRADES OF GYMNASIEN IN A MIDDLE-SIZED TOWN IN THE RUHR, 1963-1964

FATHER'S OCCUPATION / GRADE AND AVERAGE	5th GR. 11 YRS.	6th GR. 12 YRS.	7th GR. 13 YRS.	8th GR. 14 YRS.	9th GR. 15 YRS.	10th GR. 16 YRS.	11th GR. 17 YRS.	12th GR. 18 YRS.	13th GR. 19 YRS.	GRADUATED IN 1963
1. University graduates	9	2	5	11	13	21	10	17	22	35
2. Higher-level empl. non university grad.	21	19	24	29	27	34	29	40	39	22
3. Clerical workers	32	40	35	31	36	19	38	17	24	22
4a. Foremen and qualified workers	7	10	13	7	6	0	10	3	2	2
4b. Other workers	31	25	19	16	18	16	5	7	4	2
5. Others	0	4	4	6	0	10	8	16	9	17
Total	100	100	100	100	100	100	100	100	100	100

SOURCE: OECD document DAS/EIP/63.29. Information on pupils in Gymnasien comes from Die Höhere Schule.

are children of Groups 1 and 2, while only 6% are children of Groups 4a and 4b.

j) In so far as classical and modern languages and literature still form the basis for the curriculum of the most highly-esteemed sector of secondary education, children from non-professional and poorer families are at a disadvantage. Research has shown that such children have much greater difficulty in accepting the value of a classics-based curriculum and, hence, do less well at it, than children of higher social-class origin. In any case, we can find little justification for retaining the provision that is found in Gymnasien curricula, permitting Latin to be considered as the first foreign language, equivalent to English (or, in some frontier areas of Baden-Württemberg, French).

k) The extremely long periods of study required for successful completion of higher education in Germany act as a severe deterrent to children from families of ordinary means. The usual delay until the age 26 or 27 of entry into paid work is possible only for the offspring of a very small group of families, and certainly not for most. In this way access to the benefits of higher education is severely class-biased. An OECD study has concluded that "a narrowing of social disparities in higher education took place in Germany between 1952-53 and 1964-65. The participation gap between (the children of) civil servants, employees, independent workers, and workers was considerably smaller at the more recent date ... Disparities in higher education still exist, however, in Germany in the most recent data". * How large these disparities still were in 1964-1965, compared with some other OECD countries, can be seen from Diagram 2. A child from the "lower stratum" of society (C1) had a chance of attending higher education that was fully 36 times smaller than that of a child from the "upper stratum" (CS). The progress toward narrowing social disparities observed in the OECD study just quoted is seen in Table 2 to have been largely a matter of enrolling a lower proportion of civil servants' children and a higher proportion of salaried employees'. The proportion of workers' children rose from 4.9% of total enrolment in the universities in 1954 to only 5.7 % in 1966.

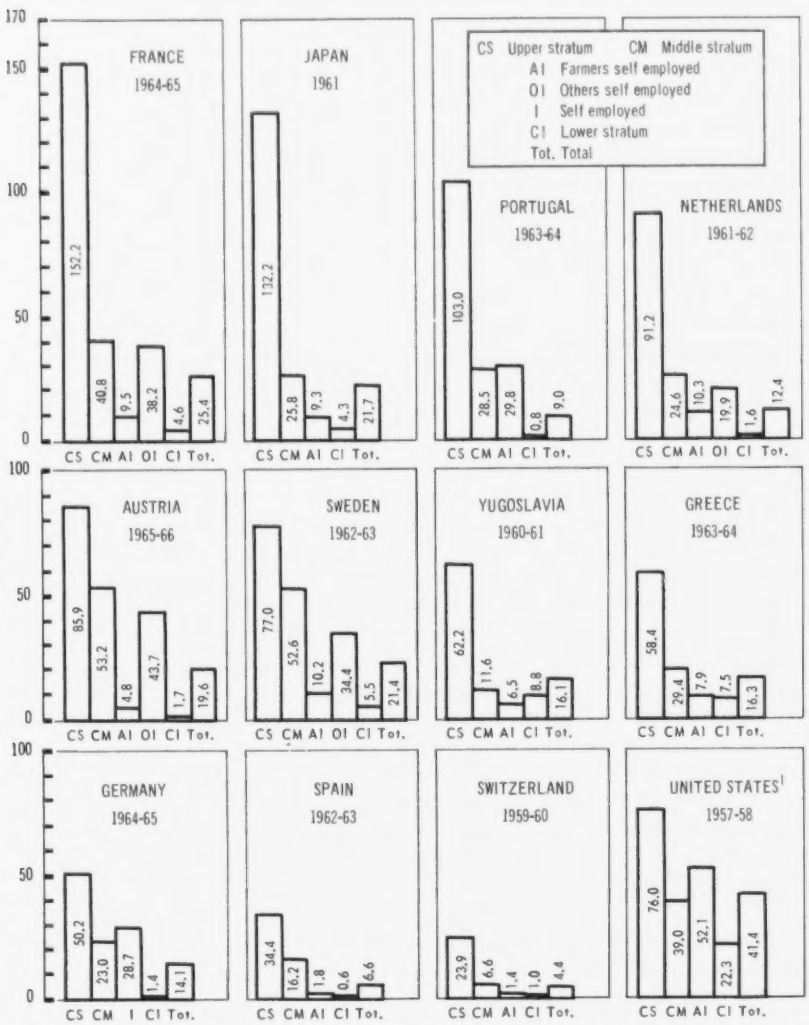
We have no direct evidence that students who elect courses of higher education that lead to vocationally-oriented diplomas in shorter periods (the Kurzstudiengänge) are selectively drawn from families of lower social origin, but we should not be surprised if this were found to be so. **

* Group Disparities in Educational Participation", OECD Document, STP(70)9, (mimeographed).

** For example, students at Pädagogische Hochschulen (Teachers' Colleges) probably have on average a lower social class origin than those at the universities.

Diagram 2

STUDENTS PER 1,000 ACTIVE MALES IN SAME SOCIO-ECONOMIC CATEGORIES



1. Bachelor's Degree recipients in relation to male population aged 40-45.

Source : "Group Disparities in Educational Participation", OECD Document, STP(70)9, p. 72.

Table 2. GERMAN STUDENTS AT UNIVERSITIES ACCORDING TO FATHERS' OCCUPATION

FATHERS' OCCUPATION	YEAR OF STUDY[1]	GAINFULLY EMPLOYED MALES OVER 40 (IN %)	STUDENTS					
			TOTAL		OF THESE ACCORDING TO FATHERS' EDUCATION			
					UNIVERSITY GRADUATES		NON-UNIV. GRADUATES	
			NO.	% OF TOTAL	NO.	% OF TOTAL	NO.	% OF TOTAL
Civil servant	1954	-	39,977	37.4	14,727	13.8	25,250	23.6
	1966	8.7	80,156	30.9	42,794	16.5	37,362	14.4
Salaried employees	1954	-	25,244	23.7	5,644	5.3	19,600	18.4
	1966	21.9	82,039	31.7	20,658	8.0	61,381	23.7
Self-employed	1954	-	35,885	33.6	11,598	10.9	24,287	22.7
	1966	22.5	76,567	29.5	30.363	11.7	46,204	17.8
Of these:								
Farmers	1954	-	4,970	4.6	325	0.3	4,645	4.3
	1966	-	7,344	2.8	533	0.2	6,811	2.6
Workers	1954	-	5,246	4.9	-	-	5,246	4.9
	1966	45.2	14,865	5.7	-	-	14,865	5.7
No data available	1954	-	439[2]	0.4	44	0.0	268	0.3
	1966	1.7	5,830[2]	2.2	1,135	0.4	2,879	1.1
Total	1954	-	106,791	100.0	32,013	30.0	74,651	69.9
	1966	100.0	259,457	100.0	94,950	36.6	162,691	62.7

1. Winter term respectively.
2. Including students without data on study and fathers' occupation: 1954: 127; 1966: 1,816.

SOURCES: Bildungsbericht '70. Federal Office of Statistics, University Statistics Micro-census 1966.

Inequality of educational opportunity is thus revealed as a result not only of shortcomings in the structure of the educational system but also as a consequence of deficiencies in the content and style of schooling. The types of curriculum in use, the kinds of achievement and success criteria employed, the expectations and attitudes of teachers and parents can all contribute to deny groups of children access to educational benefits. While we have chosen to cite some problems under the general heading, "inequality of educational opportunity", it is clear that they involve other shortcomings in modernization.

The broad approach to educational reform now being attempted in Germany is some evidence that this point is well understood. Reform of structure in secondary education, for example, will be an empty promise unless it is accompanied by cognate changes in curriculum and teacher behaviour. The same point can be made with even greater force with respect to the reform of pre-school/primary school provision and of higher education. In the words of the Bildungsbericht '70 "... the quantitative expansion of the present system (of higher education) alone is not sufficient. The core of all measures is, therefore, a reform of studies".* Reforms of structure, content, and style must be dovetailed, if programmes of educational change are to live up to their promises.

In most countries public policy and practice in education are dominated by the civil servants who administer the system and make the day-to-day interpretations of the legislative rules under which they work. In Germany this "rule by officialdom" has always been in evidence, and there are few counterweights in the system to balance the power and influence of the educational bureaucrats. Neither teachers nor ordinary citizens, neither students nor their parents are heard in the councils that determine what shall be done in the schools. Hence, the solutions offered to educational problems tend to be, above all, bureaucratic solutions, largely cast in financial and structural terms, and untempered by the urgency to change the content and style of education, too.

This predisposition in educational policy-making is a familiar one in most countries, but it has, perhaps, been reinforced in Germany by the existence of the federal system. The five main organs of national policy-formulation in education, the KMK, the Bildungsrat, Wissenschaftsrat, Bund-Länder-Kommission, and the Federal Ministry of Education and Science, all can and do have a great influence on educational structures. But until now questions of curriculum content and teacher training and retraining have been largely uninfluenced by formal decisions at the national level, and each Land has been left largely to

* Bildungsbericht '70, p. 95.

its own devices. There is, therefore, a greater danger in Germany than in many other countries for structural changes to be launched, leaving actual classroom practice to lag further and further behind. The pre-occupation with curriculum research of both a theoretical and an empirical nature in recent years in Germany is an indication of the widely-sensed need to update curricula and instructional practices.

In the next chapter we shall consider the major proposals at present being made for the reform of German education, and we shall pay particular attention to the extent to which the various changes suggested promise to alleviate inequality of educational opportunity. It will become evident that the major thrust of actual reform proposals, now as before, is confined to remaking the structures of education, even though the underlying literature, from Bildungsrat reports to Bildungsbericht '70 all stress the need to do more than this. It is clearly exceptionally difficult for non-elected officials to raise their eyes above the questions of reform of structure, and perhaps it is unfair even to expect them to do so. It is above all teachers themselves, parents, employers, and students, who ought to be pushing for due weight to be given to making the necessary changes in the content and style of schooling.* Unfortunately, as will be clear from what follows, their influence on the total shape of reform proposals has not been great.

* For a compelling discussion of the need to widen the range of participants in educational policy-making and administration, and for suggestions as to how this might be achieved, see Helmut Becker, Bildungsforschung und Bildungsplanung (Frankfurt-am-Main: Suhrkamp Verlag, 1971), pp. 62-146.

VI

CURRENT REFORM PROPOSALS AND THE GOAL OF MODERNIZATION

In the system of educational policy-making employed in Germany it has been the duty of the Wissenschaftsrat and the Bildungsrat to conduct inquiries and to propose courses of action. After discussion in the KMK, these recommendations have been submitted to the Länder executive heads who have then normally placed them before their Land Parliaments for adoption, rejection, or amendment. Thus, there was no single national body that could take a final decision on educational policy for Germany as a whole. Some Länder Parliaments could decide one way, others another. What issued from the BR or WR as a single policy could emerge from the parliamentary ratification process as a patchwork of different Land arrangements concerning the extent and timing of a particular reform.

But once the Constitution was amended to grant the Bund power to participate in educational policy-making, a supplementary structure had to be devised. The Bund-Länder-Kommission für Bildungsplanung (BLK) was established as the mechanism for working out Bund-Länder educational policy, and the recommendations of this new body will go directly to the Federal Chancellor and the Minister-Presidents of the Länder for their action. It would appear, therefore, that, at the moment, the most critical set of reform proposals in education are those issuing from the BLK, and we shall concentrate our attention on them in this chapter.

As we have noted already, a succession of important reform proposals has made its appearance in the last two years. At the time of writing, they are about to culminate in the publication of a Bildungsgesamtplan (General Plan for Education) and a Bildungsbudget (Education Budget), hammered out in meetings of the Bund-Länder-Kommission für Bildungsplanung. Three successive drafts of the Bildungsgesamtplan had been made public by the time of our visit. A fourth version was

available for us to review, through the courtesy of the secretariat of the BLK and the Federal Ministry of Education and Science. It is entirely possible that the final document, agreed to by the BLK and forwarded to the Bund Chancellor and the Minister-Presidents of the Länder, will differ in some substantial respects from the third and fourth drafts, upon which the discussion that follows is based. Some matters at present unresolved may in the end find a solution; and compromises presently negotiated may in the end break down. This should be borne in mind when considering the material presented below.

Comments on the Bildungsgesamtplan, 4th Draft

1. The goal of education

The Bund and the Länder agree on what must be the goal for education of all citizens in the Federal Republic:

> The goal of qualitative reforms and of all quantitative plans is the development of a system of education that fulfills the claims of each person for the furtherance and unfolding of his talents, inclinations and skills while paying due regard to general societal development. Education must equip him to become the responsible master of his personal, occupational and social life. In this way, equality of opportunity (Chancengleichheit) and educability (Leistungsfähigkeit) become mutually reinforcing principles of the educational system of the future. The reform of curricula, differentiated educational offerings, and programmes of studies designed to fit each individual are the means of realizing these principles. Democratic participation (Mitwirkung) and responsibility must be employed to develop the insight and understanding of all taking part. *

There is thus no doubt whatsoever that the long-term sights are set on founding education in Germany upon principles consistent with the needs of a modern, democratic society. These goals herald a break with the educational system of the past.

There is, however, an English proverb that runs, "Fine words butter no parsnips", and the promises of even the smoothest rhetoric must be tested against the realities of the political-educational world. In this instance, while all parties and educational policy authorities

* Vierter Entwurf für den Bildungsgesamtplan und ein Bildungsbudget, pp. 13-14.

proclaim their dedication to the principle of further Chancengleichheit, we note that there are some who emphasize as strongly, if not more strongly, the principle of furthering Leistungsfähigkeit (educability). * Thus it becomes possible to argue that Chancengleichheit requires greater flexibility and transferability within the school system; and that this, in turn, requires us to pay more attention to "identifying talent", "improving success-prediction", and "tailoring education to the needs of the individual child". There is a danger here that, having successfully corrected some of the worst organisational rigidities of the tripartite system, some Länder will go on as before in grading, sorting, and selecting children for different curricula, albeit in an apparently less arbitrary manner than at present.

We recognize that the identification of talent and educability, so that each child may be guided in a direction suited to him, is, prima facie, a reasonable goal for the schools and society. The difficulty is that, in order not to do more harm than good, such procedures must be applied with the utmost circumspection. In practice, and despite the utmost good intentions by all concerned, testing-guidance-orientation-selection mechanisms have appeared to serve to put children down; to dub them as "inferior"; to justify spending less tax money on them; and to get the world's dirtier jobs done. And, too often, the decision about a child's Leistungsfähigkeit is made too early, arbitrarily, and in a manner that becomes easily self-fulfilling. The result of emphasizing the Leistungsfähigkeit of children may thus end up being even more meritocratic than the beginning, even though all the "right" things will have been said.

* In some circles, it is asserted that increasing Chancengleichheit runs contrary to promoting Leistungsfähigkeit. This is the old "quantity" vs. "quality" argument. Of course, we expect that large scale extensions of schooling among population groups who previously did not send their children further academically, will cause average levels of achievement to fall. But this is hardly relevant to the argument. We want to know what happens to the achievement of the top 5 and 10%. Here the evidence to date shows that quality is not affected. See, for example, Torsten Husén, "Does Broader Educational Opportunity Mean Lower Standards?", International Review of Education, XVII, 1971, pp. 77-89, where the following observations are made in discussing some questions raised by the international study of mathematics achievement, "To what extent has it been possible within a comprehensive system like the American to produce an élite (in mathematics achievement) comparable in size and quality to the one produced within a European selective system? ... when we compare the average score of the top four per cent of the corresponding age group... The United States' top four per cent score about the same as most comparable European countries. Two countries with a comprehensive system up to the age of 15 or 16, namely Japan and Sweden, score the highest of all... The explanation for these findings seems to me to be that the comprehensive or "retentive" system provides a broader range of opportunities and a better utilization and development of talent." Ibid., p. 86.

2. Pre-school provisions

Specific proposals for pre-schooling will:

i) Extend enrolments of 3- and 4-year-olds from 20% of the age-group in 1970 to 70% in 1980 or 1985. Kindergarten groups average 30 children at present; by 1985 this is planned to fall to 20-23. Staffing provisions are also planned to improve by 25% in the 15-year period.

ii) Add a third year of pre-schooling (for 5-year-olds). This will be administered and provided by the school authorities, and hence could mean lowering the age of beginning compulsory schooling by one year, and might mean ending Grundschule one year earlier. It is planned that by 1985 all 5-year olds will be in school, in place of just over half at present.

iii) Develop special curricula for these age-groups; improve the training of personnel; provide public money to cover expenditures at present met by non-public bodies; review scales of parental contributions.

There can be no doubt that Germany needs to improve the quantity and quality of educational provision for pre-school children. German's lag behing other countries, as well as the financial burdens placed on parents have been noted already. But we would wish to emphasize that we would have grave doubts about extending down the age-scale the rather rigid, narrowly academic methods, and the over-loaded curricula that characterize so many Grundschulen. The Verwissenschaftlichung (placing on a scientific basis) of the Grundschule, about which there is at present so much talk, could have that effect. To do this might, indeed, reinforce rather than diminish the class biases already present in the system, as well as render a doubtful educational service to the youngest citizens of the Federal Republic.

Moreover, extension of pre-school provision can under no circumstances be used as an excuse for not undertaking thourough-going reform of the structure and the curricula of the various post-primary schools. On occasion during our visit we heard the opinion that, since research has demonstrated the importance of the early years of life for a child's mental development, these are the years in which extra educational provision should be concentrated. The argument then goes on to refer to the "minor importance" of the later years, and questions the need to alter much of the way in which Germany provides secondary education. In our opinion, this argument begins from an incorrectly stated premise, and proceeds through faulty logic to an unsubstantiated conclusion. Research has indeed shown that early conditions are important, but that

does not imply that the later years are either unimportant, or less important, for developing the potentialities of each child. The fact that the major portion of intellectual variability that can be observed at the end of secondary school exists at the age of 6, does not demonstrate that pre-school for 3-4 year-olds has a greater impact than later schooling. It should be remembered that the greater part of the variability at age 6 is already present at age 3, and it is therefore at the very early ages that compensatory efforts should be made, if they are to be made at all.

Certainly, we have no evidence that would support the trade-off of any given degree of reform of secondary education in exchange for the addition of one earlier year of compulsory schooling for 5 to 6 year-olds.

3. Primary education

Specific proposals concerning primary schooling will provide for:

i) Improved teacher/pupil ratios, rising from 1:42 in 1970 to 1:23/19 in 1985.

ii) Curricula experiments till 1975 to improve primary schooling by encouraging "discovery learning", independent and co-operative work, and problem solving modes of learning.

iii) Differentiation within classes, and adaptation of curricula offerings to individual learning capacities, experiences and environment: teacher in-service training is to be aimed at developing teachers' capacities for such work.

Reduction of class sizes is very necessary and can be of great help in improving quality of education, but care must be taken to concentrate the additional teachers where the largest classes now are.

As in pre-schooling, meaningful reform depends primarily on curriculum changes and teacher in-service training designed to modernize the content of learning, render less authoritarian the atmosphere of the classroom, and widen the range of criteria used to measure children's success. "More of the same" will not achieve the stated goals. It is highly doubtful that the necessary changes in curriculum, teaching styles, and success-criteria can be adequately initiated and managed from above: they must be generated largely at local school-system, if not at school and teacher, level. To date, what we have heard about preliminary plans for a proposed Federal Institute of Curriculum Research gives us no reason to believe that the required

local initiatives and voluntary co-operation will be sought and fostered. Nor are Länder authorities so far accustomed to give their principals and teachers the freedom to experiment that is necessary for the successful development, innovation and extension of new curricular and classroom management ideas.

4. Secondary education, Stage I (Grades 5 - 10)

Here, and in the next section, we deal with what is, without doubt, the most contentious topic in current educational policy in Germany, as in many other countries: the question of the structure and content of secondary education, particularly of lower secondary education. A protracted debate has raged in many Western European countries over the questions: should all teen-age children in a neighbourhood attend one comprehensive school; should they attend different schools; and, if they attend one school, what forms of differentiation, if any, within the school should be applied? As we have observed, recommendations for national policy in Germany have moved in the past decade from cautious acknowledgement of the existence of comprehensive schools in other countries to wholehearted acceptance of them as a pattern for the future.

Specific proposals in the Gesamtbildungsplan for the first 6 grades of secondary school will:

i) Mandate integrated comprehensive schools for stage I of secondary education (Grades 5 through 9) for all Länder except Baden-Württemburg, Bavaria, Rheinland-Pfalz, Saarland and Schleswig-Holstein. These latter reserve the right to experiment with an improved tri-partite system, co-operative comprehensive schools, and integrated comprehensive schools, before taking a final decision on the structure of secondary education by 1976 at the latest. However, Bund and Länder all agree that whatever the form of secondary education, transfer of students from one type of school to another shall be made as easy as possible (the principle of greater Durchlässigkeit).

ii) Establish Grades 5 and 6 as "Orientation-grades" in all schools, with no selection examinations for entry. It is agreed that in these grades there will be common curricula for all schools; teachers from all school types will work together; and there are to be no differences among schools in class-size, instructional time, and teaching load. (The 5 CDU Länder wish to insert specific language guaranteeing that Latin shall continue to be eligible as the first foreign language; that differentiation

will be permitted; and that "efforts will be made" to eliminate staffing and instructional differences.)

iii) Aim to establish curricula for Grades 7 and beyond suited to the gifts and inclinations of the students.

iv) Establish a secondary-leaving certificate I at end of Grade 10 for all students, that will open the way to stage II of secondary education.

v) Introduce elements of vocational training into the leaving certificate I, and provide the basis for differentiation.

vi) Extend the provision of whole-day schooling, mainly in secondary Stage I, but also in primary and secondary Stage II schooling. At the moment the proportion of children enrolled in whole-day schools is negligible. Two alternative plans are presented: one that would take the proportion to 60% of total enrolment by 1985; a less ambitious plan would be content with 30%.

vii) Extend the period of compulsory schooling by one year, to a total of ten years.

a) Comprehensive schools

Germany would not be the first country in which it has proved very difficult to secure an effective national move towards comprehensive secondary schools. The demands of some Länder for "time to experiment" is understandable but it is, in our view, mistaken. The decision on whether or not to have comprehensive schools is inevitably a political one, to be taken primarily on social or political grounds. Pedagogical or psychological experiments can perhaps help with certain technical problems of organisation and provide experience of new curricular arrangements. They will not tell policy-makers whether comprehensive schools are "better" or "worse" than selective schools, because a final judgement on that matter must depend upon the weights placed upon the various criteria employed. Such weights are inherently highly subjective.

Should the majority of Länder "go comprehensive", and the minority remain with an essentially tri-partite system, the prospects of standardizing the systems of secondary education in Germany will be severely weakened for a long time to come. More important, the educational opportunities of children in the various Länder will remain substantially unequal, especially if, in those Länder where different secondary school types are retained, differences of staffing for Grades 5 and 6 are not eliminated.

b) Orientation grades

The concept of orientation grades is deceptively attractive to education reformers. It is argued that, since selection is inevitable in secondary schools, it is better to take, say, two years over the business of identifying a child's talents and interests, than to make the decision in a once-and-for all manner on the basis of an examination at the age of 10 or 11. If this is so, one is tempted to extend the argument, and assert that guidance of this kind should be conducted throughout the secondary school, for only in this way can society obtain the cadres of skilled persons it requires for its efficient functioning.

Here we are face-to-face with a basic meritocratic dilemma that confronts modern democracies: on the one hand they wish to promote free choice and the development of individual talent; on the other, their economic and social systems need certain types and quantities of manpower, if they are to grow. To fulfill these latter demands some kind of identification and selection of the academically talented is necessary. But the criteria used seem to be inevitably and inextricably linked to social class factors: the children of manual workers will generally find it very difficult to be selected for the education and training that will take them near to the top of the occupational ladder. While those who are able to gain from the advantages provided by the State's educational system forge ahead in status, income, and security, those at the bottom get left relatively, if not absolutely, further and further behind. Thus, the demands of growth can run directly counter to the desires for a more egalitarian ordering of educational and, hence, "life" chances.

Whatever the solution for this dilemma, it is important that these years are not used to apply psychological, intelligence, and achievement tests to the children, to "sort them out", or to "predict their success". We fear this may develop massively in Germany (as it has in the United States), especially in those Länder that are moving cautiously towards comprehensive schools and wish to sort and allocate children within schools as a partial escape from the full impact of comprehensive organisation. If this happens, more may be lost to the cause of equality of educational opportunity than was gained in the adoption of the orientation grades.

c) Secondary leaving certificate I

Having regard to the realities of reform possibilities in education in Germany today, we are constrained to welcome the proposal to substitute a single examination at the end of Stage I of secondary education for all students, in place of separate examinations specific to each

Realschule and Gymnasium type, as at present. However, we do hope that the day is not far distant when it will be possible to do away with all terminal examinations. They do much harm and little good to the process of education in a modern system with flexible and multi-purpose provision. While tests that are purposefully designed as part of the instructional process can often be useful pedagogically, especially if they are applied with moderation, tests and examinations that are solely intended for grading purposes should be avoided. They emphasize the school's function as a grading, sorting, and labelling mechanism at the expense of its genuine educational function. They tend to promote examination-oriented and inflexible curricula and test-tied teaching. They do little to stimulate the teacher's pedagogical creativity, nor do they help him in his most difficult tast - to inspire students with a love of learning and inquiry. Indeed, we would assert that although the widespread practice of externally administered school-leaving examinations secures for society intensive efforts in study and the improved examination performance of a few children, it does so at the price of massive alienation from the purposes of education of the rest. Employers and other agencies certainly believe they need some evidence of a child's demonstrated performance on school work,* but their needs would surely be served if, on leaving school, each student were provided with an official record of his grades during his last year. (cf. the Swedish practice).

d) A vocational element in secondary education

The question of the vocational element in a comprehensive secondary school curriculum is a difficult one in many countries. It arises with particular force in Germany at this moment because of the proposal to add a tenth year of compulsory schooling. What should be the content of the extra year? Clearly, for many children who will be leaving school there should be a strong vocational element embodied in the final year's curriculum, but we noted doubts in several quarters in Germany concerning the proposed differentiation of curriculum in Grade 10 between those intending to proceed eventually to higher education (who would not get much vocational element) and those intending to go out directly to work (who would). In our view, a differentiation effected on this basis is clearly obsolete. The young entrant to the upper stage of secondary education and would-be university student needs a connection with the world of techniques and materials just as much, if not more so, than the boy or girl who intends taking a job right away. Furthermore, in modern society the distinction between "general" and "vocational" education is becoming increasingly blurred. The educational base for acquiring specialized vocational qualifications is becoming increasingly broader.

* Examination results alone are probably of limited value in predicting job success.

This raises a very important topic: the extent to which most developed countries have got themselves into difficulties in secondary education by placing book learning of the major school subjects at the very heart of the curriculum, and then seeking merely to attach elements of vocational training here and there to the course of study. In general, this fails because the vocational element plays no integrated role in the total course of study.

We have heard proposals to turn the curriculum emphasis of the secondary school right round: to place a training for an industrial, commercial, or agricultural skill at the very centre of the curriculum, and then build upon the natural needs for development of that skill the necessary linguistic, mathematical, natural science, and social knowledge and competencies. A young person would then leave school with a "trade" in his grasp; be able to earn his living with it, should he wish to use it; and he would have profited from the undoubted extra motivation to master the usual academic subjects. We understand that at least one school (the Hibernia-Schule in Castrup-Rauxul) is operating along these lines, and it appears to be a direction worthy of serious consideration.

e) Whole-day schools

Whole-day schooling can be one of the most important developments in education in Germany. By reducing the child's dependence on home conditions, it promises to improve substantially equality of educational opportunity. The challenge is to remodel curricular offerings so that the extra time is used not as a mere appendage to the regular morning hours, but as the opportunity to move education in schools towards activity methods, pupil self-teaching, and co-operative learning. In particular, it would appear worth-while utilizing the extra time partly to encourage the pupils to do independent work at school and to acquire study skills.

5. Secondary education, Stage II (Grades 11-12/13)

Specific proposals by the BLK for the upper secondary level will provide for the following:

i) Completion of Grade 10, with receipt of school-leaving certificate I, will entitle a student to proceed to any of the courses of study available at Stage II level.

ii) The range of courses available at Stage II of secondary education will be greatly increased. Curricula are to be ready by 1976. The teacher-student ratio is to improve from: 1:16 at present to 1:12 in 1985.

iii) Establishment of School Centres is to be encouraged. At such Centres many parallel courses at the upper secondary level may be economically developed and offered, and will serve areas wider than those currently served by Gymnasien.

iv) Vocational courses at this level are to be strengthened, so that those who complete the course of study may be eligible for entry into higher education.

v) Strengthening the content of vocational education in the Dual System (where young people are working and studying under the dual auspices of employers and education authorities). The prime goal is to provide a year of general vocation-oriented schooling, on the basis of which a specialized vocational education can be built. Insofar as this first year is provided by employers, it must not be dependent upon work in production.

vi) The further development of inter-firm training centres, especially among small firms, is required. Such centres must be connected to vocational schools operating under Länder educational authorities. Enrolments are to rise from 20,000 at present to 210,000 by 1985.

vii) The development of special basic vocational courses for those without school-leaving certificate I is necessary. These courses should help the student either to gain admission eventually to a regular vocational school, or improve his chances to enter employment.

viii) The reform and development of full-time vocational schools at secondary stage II are necessary. The aims of such reform are: to exercise stricter control over them; to ensure that each region is supplied with an adequate variety of vocational education offerings; to integrate general and vocational education content and goals.

ix) All such schools shall have similar status and designation. After the introduction of compulsory 10-year schooling they shall not begin before Grade 11.

x) The aim is to reduce the proportion of the age-group in the Dual System from 57% at present to 37% by 1985; and to raise the proportion in full-time vocational education from 15% at present to 21% in 1985.

The proportion of the age-group at present in courses leading to further study (i.e., working towards an Abitur) at present equals 14%. This is planned to rise to 22% by 1985. Details are as follows:

PERCENTAGES OF AGE-GROUP ENROLLED IN SECONDARY STAGE II

	1970	1975	1980	1985
Courses leading to vocational qualifications:				
- via Dual System	57	49	43	37
- via full-time schooling .	15	17	19	21
Courses leading to further (academic) study	14	17	20	22
Courses leading to both vocational qualifications and higher education	4	9	12	15
Courses qualifying for a trade	10	8	6	5
	100	100	100	100

We welcome the plans to unify the field of upper secondary education; to integrate vocational and general education; to open all tracks in the upper secondary level to students with school-leaving certificate I; to introduce a secondary-leaving certificate II that affords the student a general right to enter post-secondary education; to exercise more control over the dual system; and to integrate factory-based and school-based vocational education.

We see in these proposals the prequisites for breaking the lock-step that has rigidly linked together in one tightly-knit chain, choice of secondary school, choice of course, choice of qualifying examination, choice of direction of further study (or occupation), and eventual social and occupational status. The German word for this phenomenon is Laufbahn. It signifies a system in which the young person, once set in his "track" has his future more or less determined for him by the institutional and organisational barriers placed each side of him. Measures substantially to modify, if not eliminate, this fateful pre-determination of career and position are long overdue. Neither the economic nor the social development in Germany profits from inflexibility of the labour-force, the ensuing class-divisions, and the premature closing off of options for individual aspirations and development that such a system promotes.

a) Vocational training

German technical and vocational training was at one time the envy of the world. Indeed, under the unique Dual System some quite outstanding training programmes continue to supply industry and commerce in Germany with exceptionally well-trained personnel. Every effort should be made to retain a system that involves employers intimately in the process of training their young employees. On the other hand, some important weaknesses have developed in the system. Training can be neglected, in order to spend more time in production, and training requirements for modern technology are often too great for small companies to meet. Theoretical training given at part-time schools under Land auspices is often irrelevant to the young worker's needs.

These problems have given rise to the introduction in some Länder of a full-time Grundstufe replacing the first year of apprenticeship and designed to raise the level of the vocational school curriculum. This development has suggested the need to integrate the remaining two years of the vocational curriculum into the mainstream of the educational system.

The achievement of this aim will be far from easy. It will obviously involve a heavy financial commitment for appropriate buildings, teachers (including special training courses) and technical equipment, as well as radical rethinking of curricula. It also involves considerable changes in responsibility. At the present time vocational education is the responsibility of the Education Ministers of the 11 Länder and not of the Federal Government; vocational training, however, is a federal responsibility, but of the Ministry of Labour and Social Affairs, and not of the Minister of Education; in addition there is the basic division of responsibility between employers on the one hand and education authorities on the other. The allocation of powers could hardly be more complex.

None the less, the case for an integrated system of vocational education and training at least up to the proposed second school-leaving examination seems to us to be irrefutable. It may take a long time to achieve but it could be established as a firm goal towards which the changes which are possible should be clearly directed.

Each of the two ministries involved now guards its prerogatives, and it will require strong central executive authority to force them to work together harmoniously towards the improvement and eventual integration of the Dual System. If they cannot do so, we would recommend that the responsibility for overseeing such training be transferred in its entirety to the ministries of education and science.

b) Curriculum reform

As with all other sectors of the education system, the critical factor in a successful, meaningful reform, that goes beyond changes in structure, is development of new, broadened, lively and attractive curricula. Nowhere is this more true than in the upper secondary stage, where academicism has dominated teaching and learning. Tentative proposals that we have heard for the establishment of a new national curriculum institute do not give us much confidence that the curricula needed will be forthcoming. In particular, as we have remarked above, we do not understand why such an institute should be dominated by education officials, and not have substantial representation of teachers, parents, students, workers and employers at all levels of curriculum design and decision. It is imperative that curriculum innovation is brought about by stimulating "grass-root" initiatives, which are an important supplement to central co-ordinating action. If the latter dominates, the system runs the risk of excessive bureaucratization.

The plans to restructure the proportions of the respective age-groups going into the different kinds of courses represent some bold moves forward. We note the plans to raise the proportion of the age-group in courses leading to both academic and vocational qualifications from 4% to 15% by 1985. As we have already observed, approaches which would place a practical training for an occupation at the centre of education, and arrange around this core the necessary development of academic skills, have great intrinsic merit. By working along these lines, Germany may once again present the world with a model of how education for work, as well as academic training, should be organised and operated.

6. Teacher training

Proposals for the reform of teacher training will:

i) Establish three levels of teaching-positions, for primary teaching, secondary stage I, and secondary stage II teaching, irrespective of type of secondary school.

ii) Divide the period of training into two closely related sub-periods: Study (Phase I) and Preparatory Service (Phase II). After qualification, teachers will be expected to undertake continual further training.

iii) Require that all teachers be trained in institutions of higher education, in a curriculum that includes pedagogy, the relevant social sciences, and a subject-specialization.

We are in full agreement with the above proposals and endorse their spirit and form.

It is highly desirable that the training of primary school teachers should take place in a university setting. Many other countries are moving in this direction, for there is no justification for supposing that the task of teaching at the primary level requires teachers who are less professionally-skilled than those working at the secondary level. Both need considerable knowledge in the fields of psychology, pedagogy, and the social sciences, as well as mastery of school subject material, and while the primary school teacher may need somewhat less training in any one school subject than his secondary school colleague, he is likely to need a wider array of knowledge in the first of the fields mentioned above.

Integration of the training of primary school teachers in the universities will still leave unsettled some important problems related to the training of upper secondary school teachers, who continue to be educated along traditional lines. They undertake 5-10 years of preparation in subject-matter beyond the already quite advanced level of Abitur, and then serve two Refendar years before achieving full certification status. As one respondent observed to us: "The upper secondary school teachers are trained at the universities as if they will all become university scholars themselves". Clearly, a better balance must be found between training in subject-matter and training in pedagogical and allied skills. Considering the length of study, the academic grounding of upper secondary school teachers should not be confined mainly to one subject, but might well be extended to two, or possibly even three subjects.

Moreover, if Kurzstudien for secondary-school teachers are introduced, the preparation of teachers for grades 1 to 10 ought to be made part and parcel of such a system. It would be inappropriate and retrograde if the future primary school teachers were assigned to Kurzstudien, while other intending teachers continued with "long" training programmes.

Above all, we recognize the changing social role that teachers, especially the younger teachers, now see themselves as playing. These new entrants to the profession conceive of themselves not only as pedagogues who have to transmit a given intellectual and cultural heritage from one generation to the next, and who have to employ a system of examinations and certificates to identify and credentialize an élite. They regard themselves also as critics of existing society and believe that they should make their pupils more conscious of the deficiencies of the present world. Moreover, they think it is no longer appropriate for them to function as sorters of their pupils, accepting this one and

rejecting that one. Instead, they wish to serve as guides for their pupils, promoting each one in accordance with his most promising potentialities, and helping him to realize them.

We have noted some fears among our respondents that the new brand of teacher in Germany may turn out to be as dogmatic and authoritarian on the left as his predecessor often was on the right.

"Willst du nicht mein Bruder sein,
So brech' ich dir den Schädel ein"

is an attitude that has joined right and left in an unholy alliance in German politics in the past. It is quite possible that this particular devil is not yet completely exorcized, and should it indeed characterize the attitudes of the young teachers entering the schools today, all their forcefully expressed ideals and good intentions will not compensate German society for the real loss of freedom and individual values that a new wave of intolerance will bring about. Men cannot be forced to be free and children cannot be forced to be critical, without distorting both freedom and the critical spirit beyond repair.

Much attention is being paid today in Germany to the possibility of a teacher-shortage. As if to underline the problem, just at the present time Hamburg has begun to hire science and mathematics teachers from the United States, and the Kultusminister of Rheinland-Pfalz has expressed considerable interest in this experiment. On the whole, educational planners in West Germany pay great attention to the value of the teacher-pupil ratio and treat its improvement as one of the key indices of educational progress. We are not at all sure that such confidence is always justified. It may well be that what education needs in Germany, as everywhere else in the world, is not simply more teachers per class, but far better ways of using the time, energy, and skills of existing teachers. In any case, average teacher-pupil ratios are already exceptionally generous at many levels, at least by comparable standards in other countries. The intention to improve the upper-secondary teacher-pupil ratio to 1:12 by 1985 appears to us to demand more justification based on research findings concerning the need for such generous staffing than it has commanded.* Of course, if we are absolutely unable to change our present teaching technology and school aims, then it is quite possible that more teachers are somehow "better". However, one aim of farsighted educational policy-making must be to take account of and promote new ways of organising learning, and if this can be done, it may possibly lead us to revise all tidily precise calculations about the number of teachers the schools will "need" in 1975, or 1980.

* This is especially important when we note that the existing upper-secondary teacher-pupil ratio (1:16) is already 160% better than present staffing ratios in primary schools.

7. Higher education

In its plans for reform, the BLK has generally followed the proposals of the Wissenschaftsrat. The emphasis is upon expanding the number of places in IHE's to a total of about one million by 1985, compared with 419,000 in 1969; introducing comprehensive IHE's, starting in 1973 and completing the process by 1980; defining the content and duration of courses of study much more clearly than ever before; establishing a first degree corresponding to each higher educational qualification and each State examination; organising a system of post-graduate studies, available to students who have completed a four-year first degree; developing correspondence education; developing Kontaktstudien (arrangements for keeping graduates in touch with latest developments in their fields); guaranteeing the role and support of research in all IHE's, but arranging for its better distribution among the IHE's; defining the teaching duties of staff in IHE's; and involving the individual IHE's in the process of long-range planning for the development of higher education.

The Bildungsgesamtplan is silent on questions of the internal administration of IHE's. This is a task left for Articles 7-26 on the draft Hochshulrahmengesetz, a Federal "outline" law, that was sent to the legislature by the Federal Cabinet on 3rd December, 1970 but has yet to be acted on. In general the draft law would require substantial changes in IHE organisation and administration, along lines of increasing the participation of all members of the universities and other institutions of higher education in planning and administration. *

As we have noted above, higher education has presented the authorities with a concentration of problems not found elsewhere in education in Germany. Indeed, a high official of the Federal Ministry of Education and Science referred to higher education, and the universities in particular, as "unser grösstes Sorgenkind" (our biggest problem-child).

Many experts on all levels have told us that the old university is dead. On the whole, with some notable exceptions, this seems true. But the new university is not yet established, and there is some question as to how it will be able to fulfill the essential functions of the old universities. We were told that German universities are in a period of transition. Some of us think that they are in a period of crisis, with no certainty concerning how they will emerge from the upheaval.

* One notable exception here is that undergraduate students would be excluded from participation in decisions on research, etc., contrary to the provisions already embodied in some Land laws governing higher education.

We welcome the intent of the principal reforms outlined in the Bildungsgesamtplan and in the Hochschulrahmengesetz. The old Ordinarien-university has been for several decades hopelessly anachronistic. Indeed, the extreme polarization which can now be observed is to a large extent accounted for by the fact that the old institutional moulds do not fit the new content of university education. We believe that the structures and curricula of universities have to be adapted to the needs of the present society, and we welcome the conception of a Gesamthochschule which would further the principles of equality of opportunity. In short, we are impressed by the efforts to broaden the recruitment of university students, to allow for greater participation in the decision-making process, and to introduce more flexible teaching methods and curricula.

Great efforts are currently being made in higher education to modernize planning and practice, and we are sympathetic to the impatience that arises from the seemingly slow pace of change, after a long period of accumulating problems. We are cognisant, too, of the temptation to abandon often frustrating attempts to insert change into old practices, and to strike out boldly after entirely new, radically different approaches to university organisation. We are constrained, however, to warn against what might be called pedagogic utopianism. It is the current fashion to inveigh against the so-called Leistungsgesellschaft (achievement-oriented society). But it may be mistaken to downgrade so much the need for developing individual initiative and achievement. We are concerned by the plans at some new universities that would substitute collective work for individual research, and that would prescribe project-oriented teaching and research. In short, we affirm the need for change and reform and would only enter a strong plea against accepting any one new rigid dogma in place of the old.

We are aware that the introduction of such radical changes in the old forms would be difficult under the best of circumstances. Germany is preparing herself for a great leap forward in university reform at a faster rate perhaps than any other country - and has done so under academic-political conditions that have become steadily more tense. Sometimes, and in some places, university life has come close to complete disruption. The new university structures and proposals are being tried out in a situation that is becoming increasingly politicized and polarized. Every German we have talked to admitted that already the universities had become partially politicized and that the emergent groups, such as Spartakus (successor of the SDS) and the Rote Zellen, have political aims that go far beyond university reforms. They would like to transform universities into training grounds for a new and revolutionary type of society. We are not unmindful of the ironically authoritarian character of the anti-authoritarian movements, or of the dilemma in which this places the Länder governments.

The historic connection between university reform and radical agitation dominates the present picture. We understand that some universities (notably the Freie Universität, Berlin) are becoming ever more polarized, and we were troubled by the fears expressed by distinguished liberal academics as well as by students and members of the Mittelbau (sub-professorial staff). Both freedom and consensus are steadily eroding, and the Freie Universität today exemplifies in an extreme way all the political dangers of the present situation. However, we trust that the Freie Universität's example is not representative, for we note with satisfaction that most universities in Germany , reformed or partially reformed, have been able to maintain a far higher degree of stability and freedom than has Berlin.

The tasks of universities in Germanv today appear to us as more complicated and perhaps more beset by various dangers than is generally recognized. We are aware of our own lack of familiarity with the complexities of the situation and we make the following proposals in a spirit of modesty:

a) It seems to us that the problems of the Kurzstudium deserve high priority. At a time when university expansion cannot keep pace with student demand, it seems unfair to allow some students to prolong their studies almost indefinitely, at the expense of those who are not admitted, or who cannot be taken care of properly. At the same time, Kurzstudien must not come to be regarded as "second-rank" courses of study. They must not be used to close the doors to further study, nor should the students be taught by lower-ranking staff. There must still be opportunity offered for contact with research and for under-taking independent studies. Resolution of these problems will require far-reaching curricular and examination changes. Hochschuldidaktik (pedagogy in higher education) has been an area of competence as neglected in Germany as everywhere else in the world. Yet, if the Kurzstudien are to be turned into a great opportunity, rather than merely tolerated as an unfortunate necessity, some entirely new approaches to instruction will have to be developed and practised. Länder, too, must be prepared to release their control over examinations to some degree, to permit experimentation to go forward without penalizing students at examination time.

b) Questions of the proper relationship between science and the universities are enormously complex. They go far beyond mere quantitative considerations of how much research versus how much teaching, and involve matters of fundamental philosophical and political outlook. What kinds of sciences, serving whose purposes, at whose cost - these are questions that promise no easy answers. We feel that it would be best for us to remain silent on these issues, in view of the extreme

complexity of the subject. But, we are concerned that in Germany, as elsewhere, the old combination of research and teaching, Forschung und Lehre, may no longer be viable. We recognize that more and better teaching is required at universities; we realize that the reformed university demands an immense amount of professorial involvement in administration. We believe, nevertheless, that research has its claims, too, not least as a stimulus to good teaching and that in this regard, German developments may have jumped from one extreme to another. We have noted the concern expressed in the Federal Ministry's Bildungsbericht '70 lest research move out of the universities because of the turmoil and excessive student demands. We hope that everything will be done to avoid such a calamity. In particular, we hope that the Max-Planck-Gesellschaft, through which most non-university research is financed, and whose normal policy towards the universities is logical and commendable will do nothing to encourage such an Auswanderung.

c) The federal structure of Germany has its built-in difficulties, but we believe that its potential advantages in the present situation are an important factor. A federal system should allow for the multiplicity of forms and experiment, and we hope that the universities will carry on a variety of reforms in an undogmatic fashion and that from this competition of models, gradually new and relatively stable forms may emerge.

d) We are convinced that the present crisis in the universities is aggravated by a high degree of public ignorance about the true nature of the problems and by a pervasive atmosphere of mistrust within governments and universities. An atmosphere of this kind is inimical to the formulation of constructive responses to the present critical problems facing IHE's in Germany.

A solution, if any is available, will be one which permits a renewed university to carry on some of its old functions in new ways, as well as developing quite new functions to meet new social needs. Unfortunately, there is a tendency to maintain a kind of official silence and inactivity which many liberal-minded staff in the university find inexplicable, while from all other sides the public is bombarded with partisan expressions of opinion, often couched in the most explosive language. Mistrust and apprehension characterize the style of discourse. In such a situation it might be helpful to arrange for the early appointment of a National Commission on Higher Education composed of respected men and women from all walks of life, except from the universities themselves, to study intensively the implications of the pedagogical and political revolution now afoot in higher education. The published findings and recommendations of such a Commission might provide the basis for informed and reasoned discussion of the substantive issues.

8. Finances

One of the most remarkable features of the Bund-Länder-Kommission's Bildungsgesamtplan is the detailed forecasts of likely future costs that have been made for the period until 1985. These forecasts have been based on assumptions about growth of enrolments, changes in teacher-pupil ratios, increases in salaries, wages, and prices, and other variables. A complex cost-model has been developed within the Ministry of Education and Science, so that the effects upon costs of changing specific assumptions can be relatively quickly ascertained with the aid of a computer.

The highlights of the estimates of the costs likely to be incurred, given the fulfilment of the quantitative and qualitative targets for education outlined in the Bildungsgesamtplan, are as follows (see at the end of the Chapter, Tables 3-12 for further details):

1. Total public expenditure on education and research (including only that part of research costs to be covered from the education budget) will rise from its 1970 level of 25.8 billion DM to 71.9 billion DM in 1985, in constant 1970 prices (Table 3). The annual growth rate of this expenditure compared with the previous year is expected to fall steadily throughout the period, from 11.4% in 1971 to less than 4.8% in 1985 (Table 4). In 1970, total expenditure comprised 6.7 billion DM for capital purposes and 19.1 billion DM for current expenditures (a division of 26% to 74%); in 1985, the division is forecast as 16.5 billion DM and 55.4 billion DM, respectively; or 23% to 77% (Table 4).

   - It is expected that throughout most of the period, expenditures will grow more rapidly in the tertiary sector than in the primary and secondary sectors, but that by 1985 annual rates of growth in these two main sectors will be about the same. In 1970, expenditures on primary and secondary education were about 2.61 times expenditures in tertiary education; this ratio will fall to 2.14 by 1985 (Tables 5 and 6).

   - Until 1975, at least, some spectacular annual growth rates of expenditure are forecast in the upper-secondary sector (Sekundarbereich II). These will be of the order of 20%, or more, per annum, apart from the "low" increase already budgeted for 1972, of 9.2% (Tables 7 and 8).

2. Total public expenditure on education and research (including all research expenditure to be financed from public sources)

will rise from its 1970 level of 29.3 billion DM to 80.3 billion DM in 1985 (in constant 1970 prices). It is expected that annual growth rates of this expenditure will decline during the period, from an average of 9.2% per annum in the period 1971-1975 to an average of 4.8% per annum in the period 1981-1985 (Table 9).

3. For research alone, expenditure is forecast to rise from a grand total of 4.5 billion DM in 1970 to 7.0 billion DM in 1975. Of these sums, 1.1 and 2.0 billion DM, respectively, are to be borne by the Bildungsbudget. The rest is provided by other departments and public budgets. By 1985, a middle estimate of total publicity supported research gives a figure 12.1 billion DM, of which 3.9 billion DM would be borne by the Bildungsbudget (Table 10).

   It is planned to increase very substantially the funds devoted to research and development activities directed at educational innovation, and it is forecast that by 1985, 1.5 billion DM a year will be spent on such activities, equal to 2.1% of the total Bildungsbudget (Table 11).

The construction of reliable forecasts of the costs of education is notoriously difficult. Their accuracy depends upon correct assumptions about the future values of a host of variables, and in a society that is rapidly changing and that is, moreover, deliberately seeking to induce change in its educational system, the uncertainties are compounded. In Germany, such forecasts of costs face additional hazards because of the relative independence of the Länder educational authorities. The validity of forecasts based on average, nationwide measures can be severely compromised by unexpected decisions at the Land level on staffing, school structure, construction, and curriculum.

A budget has two sides: it deals with possible income as well as possible expenditure. A set of plans for educational development is only as good as the financial means to support it. The plans of the BLK will place education in severe competition with other government agencies for public funds. Indeed, the most "optimistic" assumptions would see the share of education, science and research in the public budget rise from 15.4% in 1970 to 25.8% in 1985, with a roughly corresponding decline in the share in the budget of "non-education" activities (Table 12). It is assumed, too, that it will be possible to raise the proportion of the Gross National Product available to governmental authorities from its present level of about 35% to about 40%:

> In the course of recent economic development, the collective satisfaction of needs has risen less than proportionately in relation to other ways of using the Gross National Product. If a more

balanced relationship is to be brought about, the State must lay claim to a larger share of the Gross National Product in the future. *

We are confident that, from the technical point of view, the forecasts of expenditure and income made in the Bildungsbudget are exemplary, and demonstrate expertise at its highest level in this somewhat Delphic art. It is always possible to question certain of the assumptions embodied in the forecasts, but the Examiners have no special knowledge or expertise to offer in this field. In particular, we cannot speculate on whether or not the voters in Germany will sanction increases of the share of the Gross National Product spent collectively, though we should point out that the present figure is somewhat below the international "norm" for highly developed economies. Instead we shall confine ourselves to two general comments, one relevant to the expenditure side of the forecasts and one to the income side.

First, we note that the construction of the long-term expenditure forecasts appears to assume that education at all levels will be carried out in 1985 in much the same basic way as in 1971. If this does, in fact, turn out to be so, we shall be disappointed, for it will mean that the pedagogical techniques of the schools and universities will have remained unaltered at a time when changes are already greatly overdue. It would be most unfortunate if the budget planning process contributed in any way to create obstacles to basic pedagogical improvement, but a set of long-term budgetary forecasts and procedures cast in a particular mould, and reflecting existing educational practices, tends inevitably to fix those practices for the future, too, as the only ones possible. At a time when many citizens and taxpayers are reluctant to concede to education the status of some sacred cow, entitled to graze every available tax pasture to extinction, it is very important to discover and apply ways of reducing the real costs of education, or at least of mitigating their rise, without sacrificing the quality we desire. This is very difficult, if not impossible, to do using the traditional pedagogy of the schools, and the search for the new techniques must be pressed forward exceptionally rigorously. We hope that a set of technically excellent expenditure forecasts cast in the existing mould will not hinder the search for the necessary new models. In this respect, we are not encouraged to see that even in 1985 it is planned to spend only 2.1% of total educational expenditures on research and development. There is no major industry that could hope to keep up-to-date and competitive on such a meagre allocation, and in the case of education

* Bund-Länder-Kommission für Bildungsplanung. Dritter Entwurf für den Bildungsgesamtplan und ein Bildungsbudget. IV. "Der Bildungsbereich in gesamtwirtschaftlichen Rahmen", p. 11, 1st May, 1971 (Mimeographed).

we are dealing with an activity that has a large deficit on research and development account, accumulated from past decades of neglect.

Our second observation is that underlying all forecasts of government tax revenues are assumptions about the likely rate of economic growth. In the case of the present Bildungsbudget, income estimates rest on the forecasts made by the Federal Ministry for the Economy, that the economy is likely to grow at a rate between 4.5% and 5.2% per annum in the period 1970-1985, with a "middle" estimate of 4.8%. By comparison, the economy grew at the rate of 5.2% per annum in 1960-65 and 4.3% per annum 1965-1970.* These are high rates of growth to be sustained over long periods of time in a mature economy. The evidence of the past 20 years suggest that high rates of growth were accompanied by deterioration in the physical environment, importation of labour from abroad on a large scale, and a massive export surplus.

The legitimacy, and even the possibility, of pursuing growth paths that will intensify these "side effects" are being increasingly questioned. Certainly we seem to be at the end of a period when the "quality" and composition of growth were not questioned and only its "size" seemed important, and we have entered a period when the big question to test the success of an economy is not "how much?", but "what?" does it produce. Because attention to these considerations will probably affect the measured rate of growth of the German economy, many of the forecasts underlying the Bildungsbudget may need recalculation and we are of the opinion that it is already time to incorporate such assumptions into the range of possibilities explored.

* Ibid. p. 8.

Table 3. OVERALL VIEW OF THE DEVELOPMENT OF TOTAL EXPENDITURES OF THE EDUCATION BUDGET (INCLUDING THE RESEARCH EXPENDITURES TO BE INCLUDED IN THE EDUCATION BUDGET) UNTIL 1985

	CONSTANT PRICES(a)		RELATIVE PRICES(b)		CURRENT PRICES(c)	
	1,000 MILLION DM	GROWTH IN FIVE-YEAR PERIOD IN %[d]	1,000 MILLION DM	GROWTH IN FIVE-YEAR PERIOD IN %[d]	1,000 MILLION DM	GROWTH IN FIVE-YEAR PERIOD IN %[d]
1970	25,8	-	25,8	-	25,8	-
1975	40,5	9,5	45,5	12,0	51,2	14,7
1980	56,7	6,9	71,9	9,6	-[e]	-[e]
1985	71,9	4,8	104,5	7,8	-[e]	-[e]

(a) Here and in the following tables, defined as 1970 prices.
(b) Here and in the following tables, refers to situation with overall price level stable (at 1970 level) but with relative prices changing in line with long term trends, i.e., price of services (particularly government services) rising.
(c) "Current prices" refers to prices likely to prevail after 1970 on the assumption of a rise in the general price level by 2,4% a year.
(d) Average yearly change.
(e) Only 5 Länder give total expenditures in current prices for the years 1980 and 1985.

Table 4. DEVELOPMENT OF THE TOTAL EXPENDITURES OF THE EDUCATION BUDGET (INCLUDING THE RESEARCH EXPENDITURES TO BE INCLUDED IN THE EDUCATION BUDGET) ACCORDING TO THE NATURE OF EXPENDITURES UNTIL 1985

In 1,000 million DM

		TOTAL EXPENDITURES	OF WHICH								
			CAPITAL INVESTMENTS				RECURRENT EXPENDITURES				
			TOTAL	OF WHICH			TOTAL	OF WHICH			
				BUILDING INVESTMENTS	ACQUISITION OF MOBILE EQUIPMENT	ACQUISITION OF LAND		EXPENDITURES ON PERSONNEL	MATERIAL EXPENDITURES	ALLOWANCES TO THIRD PARTIES	OF WHICH FOR THE PROMOTION OF EDUCATION
Constant Prices	1970	25,8	6,7	6,0	0,7	-	19,1	13,4	3,7	2,0	0,8
	1975	40,5	10,9	9,8	1,0	-	29,6	19,0	6,5	4,1	2,0
	1980[2]	56,7	14,9	-	-	-	41,8	-	-	-	3,1
	1985[2]	71,9	16,5	-	-	-	55,4	-	-	-	4,2
Relative Prices	1970	25,8	6,7	6,0	0,7	-	19,1	13,4	3,7	2,0	0,8
	1975	45,5	11,3	10,3	1,0	-	34,2	22,6	6,7	4,7	2,4
	1980[2]	71,9	15,9	-	-	-	56,0	-	-	-	4,4
	1985[2]	104,5	18,3	-	-	-	86,2	-	-	-	7,0
Current Prices[1]	1970	25,8	6,7	6,0	0,7	-	19,1	13,4	3,7	2,0	0,8
	1975	51,2	12,7	11,6	1,1	-	38,5	25,5	7,7	5,3	2,7

1. One minority of 5 Länder decided also to give the total expenditures in current prices for the years 1980 and 1985.
2. The Federal Government claims its reserve for the breakdown according to types of expenditures for the years 1980 and 1985.

Table 5. DEVELOPMENT OF THE TOTAL EXPENDITURES OF THE EDUCATION BUDGET (INCLUDING THE RESEARCH EXPENDITURES TO BE INCLUDED IN THE EDUCATION BUDGET) ACCORDING TO PARTICULAR AREAS[1] UNTIL 1985

In 1,000 million DM

	TOTAL	ELEMENTARY LEVEL	PRIMARY AND SECONDARY LEVELS I AND II	HIGHER EDUCATION[2]	CONSULTANCY IN THE EDUCATION SYSTEM	LIBRARIES	FURTHER EDUCATION	EXTRA-CURRICULAR YOUTH EDUCATION	INNOVATION	GENERAL EXPENDITURES FOR THE PROMOTION OF RESEARCH
Constant prices										
1970	25,8	0,5	17,2	6,6	.	0,2	0,2	0,3	.	1,1
1975	40,5	0,6	25,3	11,3	.	0,3	0,4	0,4	0,3	1,9
1980	56,7	0,8	34,4	16,4	0,1	0,4	0,4	0,4	0,8	2,9
1985	71,9	1,1	43,2	20,2	0,2	0,5	0,5	0,5	1,5	4,1
Relative prices										
1970	25,8	0,5	17,2	6,6	.	0,2	0,2	0,3	.	1,1
1975	45,5	0,7	28,7	12,5	.	0,4	0,4	0,4	0,3	2,2
1980	71,9	1,1	44,2	20,3	0,2	0,6	0,5	0,5	0,8	3,8
1985	104,5	1,7	64,0	28,7	0,4	0,9	0,7	0,7	1,4	6,0
Current prices[3]										
1970	25,8	0,5	17,2	6,6	.	0,2	0,2	0,3	.	1,1
1975	51,2	0,8	32,3	14,0	.	0,4	0,4	0,4	0,3	2,4

1. The expenditures for the promotion of education are comprised in the particular areas.
2. Comprising student housing.
3. One minority of 5 Länder decided also to give the total expenditures in current prices for the years 1980 and 1985.

Table 6. DEVELOPMENT OF THE TOTAL EXPENDITURES OF THE EDUCATION BUDGET (INCLUDING THE RESEARCH EXPENDITURES TO BE INCLUDED IN THE EDUCATION BUDGET) ACCORDING TO PARTICULAR AREAS[1] UNTIL 1985

(5-year growth based on average yearly change)

Pourcentages

	TOTAL	ELEMENTARY LEVEL	PRIMARY AND SECONDARY LEVELS I AND II	HIGHER EDUCATION[2]	CONSULTANCY IN THE EDUCATION SYSTEM	LIBRARIES	FURTHER EDUCATION	EXTRA-CURRICULAR YOUTH EDUCATION	INNOVATION	GENERAL RESEARCH EXPENDITURES
Constant prices										
1970	-	-	-	-	-	-	-	-	-	-
1975	9,5	3,8	8,1	11,4	.	10,9	9,0	4,3	.	12,9
1980	7,1	5,9	6,4	7,8	.	6,5	3,4	2,8	20,0	8,6
1985	5,0	6,7	4,8	4,3	14,9	5,5	3,0	3,7	13,3	6,9
Relative prices										
1970	-	-	-	-	-	-	-	-	-	-
1975	12,0	7,1	10,9	13,6	.	13,8	12,4	6,1	.	15,8
1980	9,6	9,5	9,1	10,2	.	9,9	4,9	4,8	19,6	11,5
1985	7,8	10,1	7,8	7,2	14,9	9,1	6,0	5,8	12,4	9,8
Current prices[3]										
1970	-	-	-	-	-	-	-	-	-	-
1975	14,7	9,9	13,5	16,3	.	14,9	14,9	5,9	.	16,9

1. The expenditures for the promotion of education are comprised in the particular areas.
2. Comprising student housing.
3. One minority of 5 Länder decided also to give the total expenditure in current prices for the years 1980 and 1985.

Table 7. DEVELOPMENT OF EXPENDITURES[1] FOR THE ELEMENTARY, PRIMARY AND SECONDARY LEVELS I AND II FOR THE PERIOD 1970-1975
(In current prices)

1,000 million DM

	TOTAL	ELEMENTARY LEVEL	PRIMARY LEVEL	SECONDARY LEVEL I	SECONDARY LEVEL II
1970	17, 7	0, 5	3, 6	10, 6	3, 0
1971	20, 2	0, 5	4, 0	12, 1	3, 6
1972	22, 7	0, 6	4, 5	13, 6	4, 0
1973	25, 7	0, 7	4, 9	15, 0	5, 1
1974	28, 0	0, 7	5, 3	16, 7	6, 3
1975	33, 0	0, 8	5, 8	18, 8	7, 6

1. Comprising expenditures for the promotion of education.

Table 8. DEVELOPMENT OF EXPENDITURES FOR THE ELEMENTARY, PRIMARY AND SECONDARY LEVELS I AND II FOR THE PERIOD 1970-1975
(In current prices)

Yearly change in %

	TOTAL	ELEMENTARY LEVEL	PRIMARY LEVEL	SECONDARY LEVEL I	SECONDARY LEVEL II
1970	-	-	-	-	-
1971	14.1	15.6	12.0	13.3	20.0
1972	12.4	14.0	12.0	12.7	9.2
1973	13.2	10.5	8.3	10.6	27.4
1974	9.0	9.7	9.6	10.8	24.9
1975	17.9	8.7	9.8	12.9	20.1

1. Comprising expenditures for the promotion of education.

Table 9. TOTAL PUBLIC EXPENDITURES FOR EDUCATION, SCIENCE AND RESEARCH, 1970-1985
(INCLUDING THE RESEARCH EXPENDITURES NOT INCLUDED IN THE EDUCATION BUDGET)

	CONSTANT PRICES		RELATIVE PRICES		CURRENT PRICES	
	1,000 MILLION DM	GROWTH IN 5-YEAR PERIODS[1] IN %	1,000 MILLION DM	GROWTH IN 5-YEAR PERIODS[1] IN %	1,000 MILLION DM	GROWTH IN 5-YEAR PERIODS[1] IN %
1970	29,3	-	29,3	-	29,3	-
1975	45,5	9,2	51,2	11,8	57,6	14,5
1980	63,3	6,8	80,4	9,4	-[2]	-[2]
1985	80,3	4,8	116,8	7,8	-[2]	-[2]

1. Average yearly change.
2. One minority of 5 Länder decided also to give the total expenditures in current prices for the years 1980 and 1985.

Table 10. FINANCIAL NEEDS FOR THE PROMOTION OF RESEARCH IN THE YEARS 1970-1985

(Constant prices on the price basis of 1970)

in million DM

OBJECTIVES	1970 (REQUIRED VALUE)	1975	1980	1985
A. Promotion of research in general				
I. Areas of specialized research				
Higher alternative	65	350	569	835
Lower alternative	65	350	551	738
II. Agencies for the promotion of research				
Higher alternative	526	987	1,537	2,259
Lower alternative	526	987	1,484	1,986
III. Scientific Libraries, Museums, Archives	216	302	385	492
IV. Other research promotion	244	367	425	493
Sum A				
Higher alternative	1,052	2,006	2,916	4,079
Lower alternative	1,052	2,006	2,845	3,709
On the basis of:				
B. Project-oriented research	660	869	1,100	1,400
C. Great research				
Higher alternative[1]	1,658	3,100	4,500	6,000
Lower alternative[1]	1,658	3,100	4,100	5,500
D. R and D for Defence[2]	1,166	1,000	1,000	1,000
Sums B - D				
Higher alternative	3,484	4,969	6,600	8,400
Lower alternative	3,484	4,969	6,100	7,900

1. Higher alternative: Annual Growth 1985/75:8%, 1985/80:6%.
Lower alternative: Annual Growth from 1975 on 4%.
2. Estimation of the Federal Minister for Education and Science.

Table 11. INNOVATION

	1970	1975	1980	1985
Material expenditures				
- Media and Research Centres (in Million DM)	1.3	25.0	25.0	30.0
- Rationalization of School management				
DM/Pupil		5	15	25
In Million DM		60	180	296
Allowances to Third Parties				
Production expenditures in Million DM		15	20	25
Acquisition of mobile equipment				
Implementation of Media				
DM/Pupil		20	50	100
In Million DM A[1]		239	601	1,186
In Million DM B[2]		158	420	785

1. Alternative A: For all pupils.
2. Alternative B: For pupils from Secondary I onwards.

Table 15. SHARE OF EDUCATION EXPENDITURES IN TOTAL PUBLIC BUDGET EXPENDITURES[1]
- IN RELATIVE PRICES AND CONSTANT PRICE LEVEL OF 1970 -

In 1 000 million

	1965	1968	1970	1972	1980			1985			(In THE BASIS OF CURRENT VALUES)	
					A	B	C	A	B	C	1985	1985
Expenditures of the total public budget												
- in Milliards DM	132.7	170.4	180.4[2]	206.3	344.9	356.1	365.9	618.7	657.8	677.3	195.8	316.1
- in %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Share of the expenditures for education, science and research												
- in Milliards DM	19.0	25.6	28.3	31.2	80.4	80.4	80.4	116.8	116.8	116.8	35.8	21.1
- in %	15.4	15.0	15.6	15.0	23.4	22.5	21.9	21.9	17.8	17.2		
Of which the education budget												
- in Milliards DM	15.9	19.6	22.3	25.3	71.3	71.3	71.3	116.5	116.5	116.5	5.9	18.5
- in %	9.2	11.7	12.9	12.4	20.9	20.1	19.7	25.1	22.8	21.9		
Project Research and Urban Research												
- in Milliards DM	1.4	2.0	2.5	2.7	6.5	6.5	6.5	12.5	12.5	12.5	1.1	2.9
- in %	1.0	1.0	1.4	1.3	1.5	1.8	1.8	2.7	2.0	2.5		
Share of the remaining expenditures domains												
- in Milliards DM	113.7	144.8	151.7	175.1	263.4	275.7	285.5	535.9	541.1	560.5	160.0	297.0
- in %	85.6	85.7	84.4	85.0	76.6	77.5	78.0	74.8	75.0	75.5		

1. According to the budgetary definition.
2. Figures as of January 1971.

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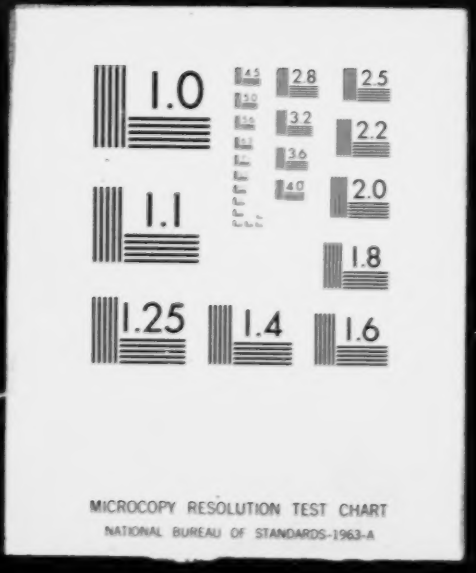


VII

SOME CONCLUDING OBSERVATIONS AND QUESTIONS

We offer the remarks that follow not as a summary of the preceding report but as an attempt to focus attention on what we believe to be some of the critical questions facing educational policy-making in Germany today.

We have emphasized throughout this report our conviction that the task facing education in Germany is, in general terms, one of modernization. The economic, social and political realities in Germany have changed fundamentally since the 1920s. Yet, in most important respects the education system has remained as it was recast after the Hitler period in the mould of those earlier times. Bringing education into closer congruence with the new social and political facts of German life is one of the great tasks facing the people in Germany in 1970s. An essential step in this reformulation is recognition that schools and teachers do not operate in a social and political vacuum. They have social obligations, that should be recognized and, in many cases, even welcomed. The claim that educational issues can and should be decided on "pure" pedagogical grounds has too often been employed as a cloak for doing nothing, or for doing too little, too late. The need to spread opportunities more widely, to open new types of opportunities, to remake curricula, to restructure educational governance and to retrain teachers are all exceptionally pressing. The shape that such changes must eventually take should certainly be influenced by considerations put forward by professional educators and, of course, many teachers are among the most forward-looking of thinkers about education in Germany. But they can have no claim to an exclusive voice in determining the structure, content, and style of Germany's educational system. These matters must, in the end, be political decisions made with an eye to a democratic nation's social needs.

The over-riding, urgent need in education in Germany, as in all other aspects of social life, is to extend and deepen within each citizen,

and particularly among the young, a sense of responsibility for one's own actions and development, social co-operation and tolerance of others. Germany, Europe, and the world at large need an intellectually and physically vigorous German nation, in which citizens think for themselves, are inclined to voluntary co-operation, and are deft in the handling of responsibility. Unless such persons are developed in larger numbers than at present in Germany, much of promise offered by the vaunted economic progress of the last two decades will have been essentially wasted. The role of a new education in building such a new society is patent. Indeed, one might argue, only if the schools succeed in producing this new kind of person will the new society come about.

1. Key Elements of Reform: Teachers and Curriculum

In this task for the schools two elements are critical: the teachers and the curriculum. Above all, if Germany can staff its classrooms with young, non-authoritarian teachers who by their own behaviour represent models of individual self-determination, voluntary co-operation, and the mature acceptance of responsibility without detailed supervision, then the battle for genuine school reform will be won, and with it the prospects for a more humane society in Germany enhanced.

We are aware, however, of the danger that the new young teachers may bring to their tasks a new dogmatism, presently instilled by the more militant left wing factions within pedagogical seminars and institutes. We would consider it disastrous if, at this moment of real opportunity, new orthodoxies were to replace the old, and we hope that the ideals of genuinely free inquiry and of a pluralistic society will not be abandoned in the classroom.

Curriculum reform, if it is to come about, must come through these teachers. If it is attempted solely from above, without teacher co-operation (as we fear at the moment is being planned), curriculum reform risks being nothing but a hollow gesture. Moreover, as we have pointed out already, curriculum reform raises in the most pointed way the need to introduce a much more democratic spirit generally into the administration of German education. Education is much too important to be left solely to the officials, or to the educators, and the need is to bring not only teachers, but parents, employers, and students into decision-making bodies at all levels. Parent-teacher associations should be developed; teachers must be freed from detailed control and given the opportunity, resources, and encouragement to develop their skills in innovation; students (especially at the upper-secondary and higher levels) must be given a sense of participation in shaping the school and college environments in which they spend important years of their lives.

2. The Problem of Centralization

The question of wider participation in educational decision-making impels us to consider the advantages and disadvantages of the federal structure of education in Germany. The provision of schooling continues to be one of the important functions entrusted to the Länder. It is an area of competence they guard most zealously. Fear of centralized control over school affairs exercised from Bonn is rooted in the conviction that, fundamentally, Germany is composed of a number of different geographical areas, each with its distinctive culture. Hence, the matter of deciding what goes on in the schools is also in the end a matter of deciding what kind of society Germany shall be today and in the future.

The debate over this structure is usually cast in terms of the net benefit of having a unified national policy versus the net benefit of having 11 fairly separate, though loosely co-ordinated, systems in which experiments can take place and through which a spirit of friendly competition and emulation can be engendered. In this formulation of the problem, the sovereignty of the Länder is then regarded as either a blessing or a curse, according to one's view of history and politics. Some profess to see in the federal structure of Germany the only way to preserve a desirable multiplicity of approaches to the problems of schooling. Each Land can then embody in its educational system essential elements drawn from its local traditions and socio-political philosophy. In variety, it is argued, lies strength, and voluntary agreements (such as the Düsseldorf and Hamburg agreements of 1955 and 1964) can be relied upon to eliminate excessive differences of educational structure and policy among the Länder.

On the opposing side are ranged those who regard Land sovereignty as an anachronism hindering the inevitable development of a nationwide labour market, social and cultural unity, and progress towards equality of educational opportunity. These proponents of a strong Federal presence in educational policy regard appeals to the principle of Land sovereignty as simply delaying devices in the path of reform and moderization.

In our view, this formulation of the issue misses the real problem facing educational policy-making and administration in Germany. The essential problem seems to us to be the excessive bureaucratisation and centralization of decision-making in each of the 11 Länder capitals. Irrespective of whether Land sovereignty in education (so-called Kulturhoheit) has or has not inhibited the development of national policies, and irrespective of whether it has or has not promoted desirable reforms (and arguments can be made on each side of these questions),

it is incontestably true, we feel, that it has operated in such a manner as to allow Gemeinden (communities), local school officials, and teachers too little independence for experiment, innovation, and modification of the educational roles laid down for each Land as a whole. It is this centralization of control at the Land level which needs to be remedied.

To substitute central control from Bonn (even if that were possible) in place of central control from the Land capitals would be no solution at all, but Bonn clearly does have an important role to play in encouraging the administrative democratization of education in Germany in the coming years.

3. The "Laufbahn" system and the "Over-production" of Graduates

Another aspect of the rigidities and inflexibilities that beset German education and society is the exceptionally tight relationship between educational qualifications and job opportunities, the so-called Laufbahn system. Both by law and by custom, in the civil service as in the private sector, the determination of a worker's precise employment level by previous course of study, examinations and formal academic qualification has been taken to often absurd lengths. Employers seem to be afraid to trust their own judgements concerning the abilities and skills of potential employees; they are often forced by law to employ persons at levels that are justified only by their paper credentials and not at all by their demonstrated competence. Those with general, academic training will always be appointed at levels above those with practical training, and will be able to rise to levels that are simply barred to the latter. Reform of these traditions would have a vastly beneficial effect upon the educational system, for it would remove one of the most powerful incentives for continuing with many of the present curricula, courses, and examinations that are clearly undesirable.

However, we would judge that reform of the Laufbahn system will be so difficult that it will make reform of education itself look like child's play. The attitudes that support it are embedded so deeply in society that only a major change in perspectives will succeed in opening up careers to demonstrated ability and free them from their present enslavement to paper qualifications. Undoubtedly, the Federal and Länder Governments have a role to play here, as perhaps the worst offenders to date on this score. If they could substantially modify the present system in favour of much greater flexibility of employment for civil service jobs, they would exert a strong influence on the private sector to modify its employment practices correspondingly.

Plans for the expansion of education have been criticized in the Federal Republic on the ground that the nation is in danger of producing an "educated proletariat", a mass of graduates with diplomas for whom no jobs will exist. We know of no evidence that would support this conclusion. Manpower-requirements forecasting is an exceptionally tricky art, especially in rapidly developing, advanced economies. At best, it may assist the educational planner in identifying and quantifying probable minimum future needs for some clearly defined and essential categories of manpower. But manpower forecasting techniques are by no means sufficiently developed to give us much help in determining maximum or, even more desirable, optimum levels of training of the population. Germany is a rich and prospering nation. On the whole it has underspent on educational provision in the last 20 years. We have no reason to suppose that it cannot, and should not, support a much more extended educational effort in the next 15 years. It presents, in fact, a textbook example of a country that should not seek to base its quantitative educational plans on manpower considerations. Instead, it is rich enough and economically secure enough to be asking: what kinds of citizenry do we want? What kinds of schools are likely to help us to get them? And what do we have to do to reform our present schools, qualitatively and quantitatively, in order to get the schools we need?

It is clear that the educational authorities must pay close attention to the financial constraints upon educational expansion in the next few years. Already, "educational euphoria" has been followed by a certain disenchantment,* and more money for the schools will not be easily available, but this by no means implies that additional educational provision should be tied directly and exclusively to forecasts of Germany's manpower needs. Indeed, such a policy would run the gravest risk of alienating an ever-large fraction of the young, who are already suspicious that reform plans for education are merely part-and-parcel of the "technological society", that has run out of control. Instead, the funds that do become available for the schools and universities must be used in a way that will harness, and not frustrate, the energies, initiative, and motivations of the young.

*
* *

Our report and concluding observations above pose a host of implicit and explicit questions for discussion. We would like at this time to single out the following as appearing to us to be of especial importance and worthy of comment at the forthcoming Confrontation Meeting.

* Comment by Herr Staatsrat Ranft, Chairman of the BLK committee for the Bildungsbudget, to the Conference of Länder ministers of finance, Hamburg, 28th May, 1971.

AGENDA ITEMS FOR DISCUSSION

We have attempted, in our report, to provide a fairly detailed and documented analysis of the major issues and problems as we see them confronting the development of education in Germany in the light of broader social, economic, cultural and political considerations, desiderata and objectives. In view of the complexity of these problems, we believe that for the purposes of the debate at the confrontation meeting a more effective exchange can take in relation to major themes for discussion, rather than the list of specific questions. Therefore we present below three main themes for this discussion, taken from our report, but with some further indication concerning the nature of the debate that could take place around each one of them.

I. MODERN GERMAN SOCIETY, THE "LAUFBAHN" SYSTEM AND THE INDIVIDUAL

The German economy is one of the world's most dynamic. It is at the forefront of those modern economies characterized by rapid technological and social change. Based on the performance of other economies, such as that of the United States, it can be expected that more than half the jobs occupied by people in 1985 would be jobs that did not exist in 1965. Changes in social roles and status are developing with parallel rapidity.

Therefore we believe that what we have called the Laufbahn system, which "tracks" young people in their school years, guiding them toward formal educational attainments which are specifically connected to their work careers, whether in the public or private sectors, is no longer appropriate to the modern German situation. It is a straightjacket severely limiting the development of education as a contributor to the

modern German social-economy. For example, under it the operation of recurrent or "permanent" education, proclaimed by educational authorities, would be largely restricted to remedial education for adults rather than education for lifelong development which is usually understood by this concept.

There is a large measure of agreement that the central aim of German education should be to promote the development of people with characteristics appropriate to their functioning in and contribution to these crucial transitions of modern German society. For example, the new circumstances are thought to require people with significantly higher levels of initiative, flexibility, and capacity for self-development. Thus, the BLK suggests that the central goal of education reform is that it fulfil "the claims of each person for the furtherance and the unfolding of his talents, inclinations and skills while paying due regard to general societal development. Education must equip him to become the responsible master of his personal, occupational and social life".*

In our report we have further said in interpreting this educational goal that it involves an effort to extend and deepen within each citizen, and particularly among the young, a sense of responsibility for one's own actions and develop social co-operation and tolerance to others... This means also developing people who can think for themselves, are inclined to voluntary co-operation and are deft in the handling of responsibility.

Recognizing that there is a range of possible approaches to these objectives, we nonetheless suggest that the debate around this theme focuses on reforms in the following directions:

a) Possible measures, both in the public sector and in co-operation with the private sector, to make recruitment and promotion rather more flexible and less tied to formal educational qualifications.

b) Steps necessary to ensure that teachers are trained and/or re-trained to serve as non-authoritarian models exemplifying voluntary co-operation and mature acceptance of responsibility without detailed supervision.

c) Measures for curriculum development subject to wide-spread experimentation and reform, involving not only stimulation and ordination by vigorous central pedagogical bodies but, most importantly, extensive participation by teachers, students, parents, employers, and the community at large.

* Vierter Entwurf für den Bildungsgesamtplan und ein Bildungsbudget, pp. 13-14.

d) Practical steps needed towards achieving a genuine de-centralization of initiative in educational development and operation down to individual schools and their communities in contrast to the current centralization of the school systems within each Land. This involves the development of a new administrative "environment" essential for a renewed educational functioning.

II. EQUALITY OF EDUCATIONAL OPPORTUNITY: THE PREFERRED "MODEL" AND POLICY MEASURES

Education in Germany has been cited as notably lagging behind many other countries in extending equality of educational opportunity and participation to less-advantaged social groups. German authorities have for a number of years considered a wide variety of measures related to these problems. These include massive and detailed studies and proposals for structural reform such as new pre-school programmes, a common 5th and 6th grade curriculum, a tenth compulsory school year, comprehensive secondary schools and comprehensive universities - all of which represent elements in a framework for increased educational opportunity.

However, there are wide disagreements on these in Germany and there is an obvious need for clarification, both conceptually and in terms of concrete policy measures.

a) Conceptual "model". With regard to the conceptual issue, we have outlined in our report a number of schematic "models" by which equality of educational opportunity may be variously defined (see paragraphs 84-94), and it would be useful to discuss which one of these models the German authorities would subscribe to, having regard to their stated objectives for the development of their educational system toward increased modernization and democratization.

b) Policy measures. This discussion would lead naturally to consideration of the overall structural reforms seen to follow from the accepted model or models and of the specific policy measures to bring about the substantive reform without which structural changes remain meaningless. Examination of German education illustrates that isolated "solutions" to problems of the various parts of an educational system considered separately are usually inoperative. Only by considering their inter-relationship is practical policy likely to be developed. As a basis for discussion we recapitulate briefly

a number of our observations concerning each level of education and examples of possible measures, which, taken together, might suggest one general approach to educational change in Germany. We would welcome the reactions of the German authorities to these specific points:

1. Pre-school. Present pre-school programmes serve only a minority of the relevant age group, and in this case the more privileged social sectors. Since these are the social groups for whom such service is least relevant, and since resources are limited, should not the expansion of pre-schooling be based overwhelmingly on public support to the children of the less-privileged?

2. Primary school. What is the justification for beginning a period of observation and choice for future school careers only at the arbitrary point of transfer out of the Volksschule? Would eradication of this artificial dividing line open new possibilities for structural and curriculum changes?

3. Secondary school. The proposals of the BLK for 1985 would still put 63% of the young people in a strictly vocational type of upper secondary education (either part of full-time). Thus, the comprehensive secondary schools will still not bring a majority of the students into the mainstream of education. At the same time, vocational education seldom provides an avenue to higher education, and little progress has yet been made in curriculum reform in this field. Do these facts not suggest the need to develop new curricula which would prepare people for higher education by means of vocational studies?

4. Higher education

   i) Access: If universities are to be developed into a Gesamthochschule (comprehensive) system with highly diversified entrance requirements, could not the Abitur examination as a general entrance ticket to the university be abolished?

   ii) The Kurzstudien (short courses): Could a short course system (Kurzstudien) in higher education be more readily created and accepted if, for example,

   - the students, employers and other interested groups were to have significant roles in the formulation of such courses;

   - employers in both the public and private sectors were organised to give a high level of recognition to such courses;

- the employers and university authorities were to to make positive arrangements for a large number of people to enter or re-enter university work at all levels?

III. THE NATURE OF THE COMMITMENT TO EDUCATIONAL REFORM

We have tried to frame this report in the knowledge that in Germany today effective educational policy, whatever the stated objectives and the measures analyzed and chosen to meet these objectives, depends upon the nature of the commitment to educational reform.

a) Political commitment. For example, we have stressed that the changes called for in German education are primarily a matter of clearly expressed political commitment. Educational research can indeed play an important role in support of such commitment and we have emphatically questioned the low level of projected research expenditure - 2.1% of the total education expenditure by 1985 - given the long backlog for innovative educational development.

However, political commitment has shown itself to be paramount in bringing about effective change in institutions as fundamental as education. For example, we would emphasize that we were struck by evidence of the increasingly polarized political struggle between contending groups to gain a one-sided, iron control of the universities. Yet the detailed legal and technical plans and provisions aimed at liberalizing the structure and administration of higher education were accompanied by an official silence on this underlying political issue, whose outcome will determine the actual substance of reform in higher education.

These and other considerations in our report suggest a discussion of two aspects of political commitment for education in Germany:

1. Commitment for educational growth. During the past decade Germany has joined other OECD countries in a notable expansion of its educational system. However, many sectors of opinion, including those sympathetic to this expansion, express anxiety that there will soon be an "over-production" of highly educated manpower. Thus, future commitment to further expansion seems to be in doubt. How firm is the commitment to further expansion?

2. Commitment for educational democracy. Closely related to growth is the quality of this growth in terms of its social function. This commitment in Germany seems to involve at least:

   i) increasing significantly the participation of less-privileged social groups (urban poor, rural groups, women, children of foreign workers, etc.) in the upper levels of education;

   ii) broadening the participation in the governance of all levels of education;

   iii) and defending educational institutions as places for free enquiry, open expression and tolerance of ideas without any form of dogmatic domination.

b) Financial commitment. These commitments to growth and democracy also have their financial implications. As long as political commitment is not converted into the provision of sufficient financial resources, then the top of the educational pyramid will remain narrow and any "model" for equality of educational opportunity will be a conservative one. The proposal to raise the financial support for education, science and research in Germany from 3.2 to 7.5-8.6% of GNP by 1980 is not out of line with long-term trends in other modern countries. However, the "optimistic" assumption is that while the public share of the GNP will increase to 40%, education, science and research will also increase as a share of the public budget to 25.8 in 1985 (up from 15.4% in 1970). The share of educational expenditures alone in the enlarged public budget will increase by 10%. However, we note that the only cost projections produced appear not to take into account envisaged educational reform or the various options that could be open. The initially high annual growth rates in expenditure therefore seem to be due mainly, if not wholly, to the simple expansion of the existing system.

Therefore the major issue which we would suggest for discussion in the area of finance is whether this large proposed financial bill is not particularly vulnerable in that it fails to reflect the political commitment for educational reform. There are obviously important cost implications involved in each of the various reform proposals advanced and in the process of discussion in German education today. Could planning authorities provide the data for discussion which shows the costs involved in not changing the educational system - which means its expansion on the basis of existing structures and practices - as against the costs for various alternative reforms?

A second area of discussion - an area in which few countries have made consistent progress - is the planned use of financial measures

and instruments. Given a commitment to various directions of educational change, financing can be seen to involve strategy for attaining these reforms. For example, financing measures can deliberately involve a redistributive function for the educational resources among social groups and regions, the shift of burdens for some parts of education to or from private sectors, or a shift in development priorities in favour of certain aspects of education (pre-primary, comprehensive schools, etc.). An important strategic commitment to bring about a new emphasis in educational experimentation would be represented by an increase in funds for action research. To what extent are such financial programmes in preparation for Germany?

c) The planning process. Early in this report we stressed the extraordinary activity among German education authorities in analyses, reports and programme proposals. These reflect the complex administrative structure and the evolving planning process in a system which has eleven ministries of education with the constitutional authority for operation of eleven school systems within a Federal Government structure, which now has a Ministry of Education and Science. The culminating point of this development seems to have been the recent deliberations of the Bund-Länder Kommission (BLK) which have been recounted here as far as they had developed by the time of writing this report (in Chapter VI).

We have expressed our confidence that the efforts of the BLK could not be allowed to fail at this juncture in the development of German education. However, this will require, it seems to us, a planning procedure which builds up a strong technical capacity to develop the data and analysis for a central framework within which German education may be advanced, while at the same time providing a wide scope of initiative for experimentation which enters into the planning process at the most local levels. We should like to suggest a discussion of the next steps envisioned by the German authorities to be taken in the development of such a planning process.

APPENDIX

After our report had been finished, some facts concerning the rapid development of vocational training for adults in the last two years were called to our attention. We believe that the points made below are sufficiently significant to warrant a separate note.

Since the passage of the Federal Arbeitsförderungsgesetz in 1969, there has been a significant expansion of vocational training for adults, financed by the Bundesanstalt (BA). In early 1969, about 10,000 persons were registering each month at local BA offices for courses of vocational training and retraining; by 1971 this had risen to 30,000-40,000 persons. Some of this rise represents a switch from private employers' training programmes to publicly operated plans, for there has been an increase in the payroll tax payable by employers to BA funds from 1.3% to 1.7%. Part represents an increase in unemployment. It is noteworthy that while a depression in economic conditions may make it difficult to spend more on schools and universities for the young, it may make spending on vocational training and retraining for adults easier, and more advisable. To enroll an otherwise unemployed man in a vocational training institution may not cost very much more than the unemployment insurance benefit, and can contribute markedly to raising labour mobility just at the time when it is most needed. In this area, the work of the Ministry of Labour and Social Affairs deserves high praise.

Part Two

THE CONFRONTATION MEETING

30 November 1971

INTRODUCTION

THE CONTEXT OF THE REVIEW OF GERMAN EDUCATIONAL POLICY

1. The Background

Ever since the Second World War the key objective of German education has been "democratization". The pursuit of this, from the ravages of a war-torn society into a period of astonishing economic progress has, however, proved more difficult a task than many supposed. Introducing the examiners' Review of German Educational Policy and presenting the OECD examining group to the German Delegation and others present at the confrontation meeting, Mr. Peyrefitte summarized the current situation. In spite of the German "economic miracle" and the rapid development of industry and technology, educational growth has been slow and has demonstrated the fallacy of the residual factor thesis in which a country's economic and educational development were supposed to be interdependent and proportionate to each other. At the beginning of the 1970s, therefore, Germany presents an example of advanced, technological growth to the future of which the present system of education does not seem capable of making more than a limited contribution.

The paradox is all the more shocking when we consider that the German economy is more closely related to its educational system in "formal terms" than is the case in many other OECD countries. Employment opportunities are so closely tied to formal educational qualifications that individuals' careers become tracked and pre-determined at an early age. Selection at the age of 10 for one or other branch of the educational system introduces an arbitrary allocation of children into an unequal and even more arbitrary pattern of secondary education. The inequalities thus established are reproduced at a later age in the world of work; individuals, recruited and employed on the basis of

their educational experiences, are unable to move from one type of employment to another of higher status with a consequent inflexibility of personnel that in the long run can only do the German economy harm. Unequal life chances and the parallel lack of mobility negate the "democratization" which the German people now seriously seek for their society.

Mr. Peyrefitte emphasized how impressed he and his fellow examiners had been at the Germans' own critical self-analysis of this situation. The examiners' report had drawn extensively from recent research conducted by the German authorities, in particular from the major documents produced by the Kultusministerkonferenz (KMK), the Wissenschaftsrat, the Bildungsrat, the Bundesregierung (Federal Government) and the Bund-Länder-Kommission für Bildungsplanung, as well as such German institutions as the Max-Planck Institut für Bildungsforschung. Of special note was the work of the Bund-Länder-Kommission (BLK) on a Bildungsgesamtplan which was in its fourth draft at the time of writing of the examiners' report and has since been further developed into a fifth draft, representing the Kommission's effort to harmonize or at least to clarify the positions of the various groups in Germany on key issues in educational policy.

The widespread recognition in Germany today of the need for educational change, as represented by this research, strikes a note of considerable optimism for the future. Moreover, the resources for change are clearly at hand in the historical strength and depth of German culture and the material resources forthcoming from her prosperous economy. Significantly, discussion in Germany does not hinge upon whether or not to reform education but rather on how and at what speed this reform should take place.

2. The Examiners' Approach to the Major Issues in German Education

Obviously "democratization" is a term which has meaning only when interpreted in action and in programme, and this is particularly true with respect to education. The examiners approached the problems of such programme and action in the German context under three headings, considering: first, the major or key elements in the substantive reform of the educating process; secondly, the organisational problems of the education system; thirdly, the relationship of this educational system to society at large.

In the case of substantive reform, the examiners felt that in a sense the key reform would be the reform of the teachers themselves. Educational change is only meaningful in terms of change in the learning

being done by the students. In this learning process the most significant relationship for the students is their relationship with their teachers. There is no substitute. Institutional reorganisations, new curricula, rearranged structures, none of the most heroic measures are effective if they do not result in a profound change in the teachers' concepts of their jobs and of themselves, in their relationships to their students and to the community, and consequently in their behaviour.

It was hoped that this review would encourage a great increase in scientific research for educational development, and in this context the examiners noted the need to organise a serious push for new curricula development in Germany. For these efforts to become an operational part of widespread reform in German educational institutions, however, they had to be related to extensive experimentation involving the teachers all across the country.

Organisational problems in German education occupied a large proportion of the examiners' discussions in Germany, but the examiners wished to emphasize that organisational changes could not of themselves solve the basic problems of German education. One underlying problem had to be kept in mind as the basic concern within which any organisational change should be considered. This was the concern for giving more and more initiative to the people directly concerned in the daily process of education - the teachers and the students in the schools and universities, as well as parents and related people in the community.

The examiners noted a concern over the problem of centralization and wanted particularly to emphasize that centralization could prove just as restrictive on a local level as on a national level. The tendency to centralize decision-making within the ministry offices of each Land would of course not be compensated by further centralization of decision-making at the Federal level. The problem was rather the extent to which decisions in education could be put into the hands of the people in the schools. Only by a positive answer to this question could the widespread experimentation and innovation, which was generally recognized as necessary for the development of modern educational activity, take place.

On relationship beyond the educational system: the examiners felt that the German educational system should develop a new level of flexibility to enable it to respond to the needs of individual students for self-development; as the German authorities themselves acknowledged, similar flexibility should be promoted in institutions outside the educational system. The present system of education prepared people with specific qualifications for specific jobs and functions in society. It

was now generally recognized that the rapid transformation of the German economy based upon a developing technology required a more flexible, creative, and autonomous labour force capable of guiding this economic growth rather than merely submitting to it. A modern economy implies a fluid modern society, one characterized by mobility, and the educational system must help prepare for such mobility. This would include helping individuals arrive at an understanding of the meaning and objectives of their mobility. There could be no overproduction of educated people in a society that was expanding on the basis of the talents of its people, and the more talented the people in this kind of expanding society, the more the society could continue to grow.

3. Introductory Remarks by the German Delegation

The occurrence of the OECD confrontation meeting, said Dr. Vogel, had compelled the German authorities to pause and take stock of the progress of their educational system at a very critical and decisive stage in its development. The examiners' excellent report had done a great deal to support this analysis and had shown just how intimately an examining board could become acquainted with the particular problems, traditions and legal framework of a national educational policy. Nevertheless, the examiners' sensitivity to the German situation had not inhibited their expressing direct and telling criticisms of the educational system.

One of the unusual characteristics of this report was its readability. Usually when new plans were published for discussion in Germany there was much groaning and grumbling and pleas for not yet more documents, but for action and results. This report was singular, however, in its lively, suspenseful and interesting nature. Its timing was also propitious, entering as it did into a rapidly changing landscape between the fourth and fifth drafts of the Bund-Länder Kommission report.

Although each of the agenda items and questions that the examiners had raised had focused on an important educational issue, the report had also consistently emphasized the links between education, educational planning, financial and general social policy. The relationships between education and social policy had been made particularly clear in the models the examiners had described for example, in the model of the race-track or in the constrasts posed between traditional schooling and a modernized school system. Although there was an inherent danger of oversimplifying a situation by fitting it into pre-determined categories, these models did provide useful reminders of the broad policy objectives

that often got overlooked in German educational planning. They were not uniquely confined to the German situation, moreover, but were applicable in some way or another to all the OECD countries. The report and the present confrontation meeting thus demonstrated the value of focusing on one country's problems in order to help others also arrive at a viable method of self-analysis.

Considering the particular points of focus of the examiners, Frau Hamm-Bruecher felt that the emphasis on broadening and loosening the restrictive ties between educational qualifications and career prospects was fundamental. The recent reforms in secondary school education had not contributed to this as extensively as had been hoped and a wide-ranging attack on the problem, as the Bildungsbericht '70 had acknowledged, and to which this OECD examination was now contributing, was certainly necessary. The time for piecemeal reform was past and an all-embracing programme for educational reform had now to be put into action.

This, as Dr. Reimers supplemented, would have to encompass other crucial aspects of the educational system including, in particular, teacher training, the broadening of college education and the abolition of the present Abitur, topics to which the discussion then turned under the first of the agenda items.

I

MODERN GERMAN SOCIETY, THE "LAUFBAHN" SYSTEM AND THE INDIVIDUAL

In this, the first of the agenda items, the examiners drew a contrast between the dynamic German economy and an educational system which appeared to them to be based primarily on principles of rigidity and fixed prescription. Introducing this item, Mr. Embling emphasized that this had been one of the aspects of German education that had struck the examiners most forcibly. Though such characteristics were certainly evident in the educational systems of other countries, in Germany they seemed to be all-pervasive. They were prevalent, for example, in: the hierarchy of the secondary schools; in the courses and examinations of these schools and the rigid conditions for entry to higher education; in the autocracy of the Ordinarien professors in the universities; in the training, status and pay of teachers; in the tight administrative control held over education by the individual Länder; in the arrangements for apprenticeship training which, although of great service to Germany in the past, were now outdated; in the regulations governing recruitment to and promotion within the civil service.

It was revealing to compare the examiners' impression of such rigidities with the recent statement of the BLK that the central goal of educational reform was to fulfil "the claims of each person for the furtherance and the unfolding of his talents, inclinations and skills while paying due regard to general societal development. Education must equip him to become the responsible master of his personal, occupational and social life."

The examiners acknowledged that efforts had been made recently in Germany, in line with the new conception of education outlined in the draft of the Bildungsgesamtplan, towards overcoming inflexibility in education. For example, attempts had been made to improve mobility between the different streams in secondary school education. In the universities - and not only in those newly founded upon a reform concept

such as the University of Konstanz - attempts had been made to break away from the traditions of the past. Likewise, changes had taken place in Gymnasium curricula and courses and some Länder were developing or experimenting with far reaching reform concepts in secondary education. Yet, sadly, the impression still lingered on of an educational system dominated by concepts and structures out-of-date in a modern society.

Because of this anomaly, the examiners had focused in their report on four particular areas of concern, within which they sought answers to the following questions:

a) What contribution could the Federal and Länder governments make to the reform of the "Laufbahn" system that tied educational and occupational careers so tightly together? How could private employers be encouraged to relax their often strictly applied certificate and diploma requirements?

b) What specific steps in reforming teachers' education, at both pre-service and in-service levels, could be taken in order to enlist the vital cooperation of the teachers in educational reform?

c) Should there not be greatly increased participation in educational decision-making by parents, teachers and local authorities and citizens? What forms might this participation take and how could it be effected? In particular, how could the range of participation in bringing about curricula reform be widened?

d) Was there any good reason for keeping the Abitur as a general ticket to university when the latter developed into a Gesamthochschule with highly diversified entrance requirements?

Lastly, added Mr. Embling, he would like to know to what extent the German authorities were aware that those entering the dual system (the traditional scheme of apprentice-training: shop-work plus part time school) had virtually no chance of entering higher education. Ought not this barrier to be drastically lowered, if not abolished completely.

1. Relaxing the Dependence of Recruitment and Promotion Prospects upon Educational Qualifications

Frau Hamm-Bruecher agreed with Mr. Embling that the relationship between education and employment, though a crucial one in all of the OECD Member countries, assumed a particular significance in Germany. The existence of the "Duales System" did indeed impose

severe restrictions on the social and economic mobility of those undertaking the traditional vocational training as opposed to academic studies, and the examiners were right to doubt the value of previous attempts to loosen such rigidities.

It had to be noted, however, that the loosening of traditional ties, such as those between the educational system and the civil service for example, could proceed only very slowly. The same was true of doing away with the Abitur or changing patterns of popular participation in education. In each case long-standing traditions were being challenged; therefore, phased, transitional stages were necessary. Looking back over the introduction of the new school system in Sweden, it was striking that the entire reform had taken place over a period of twenty-five years. Though it was clear that a total reform of education was what was now needed in Germany, it was equally evident that such reform could not proceed very rapidly.

In evaluating the relationships between education and the German economy, Mr. Rehn (Director, Manpower and Social Affairs Division, OECD) emphasized that the examiners' attack on the notion of planning education according to predicted manpower needs cannot be interpreted as a disregard for making a relationship between education and work. The problem of education is to help individuals to find a role in the world of work. In the modern world this means not finding a track on the "Laufbahn" but an emphasis on flexibility. Training for employment, for example, should prepare people for further education and for job mobility, particularly while unemployed - it should facilitate people's mobility from low to high areas of employment.

Currently, as set out in the Bildungsbericht, real efforts were being made in Germany to tackle this issue. Recognising the uncertainty of future employment patterns and economic needs, flexible provisions for improved broader training facilities were now being introduced. More particularly, Mr. Rehn pointed out, the Labour Market Administration, which subsidizes the training and re-training of workers, has in the past two years had an increase in its resources from a figure in the order of 100 million DM to 1 billion DM. It is true that some of this increase may represent a change in bookkeeping, in that some expenditure borne by industry is now in some cases borne by the Administration. However, this change does provide a foundation for expansion of this kind of recurrent education as a matter of public policy, and it has been proposed that preparations to expand recurrent education be directed toward people's particular needs in relation to the changing labour market. This demonstrated concern among German authorities to foster greater flexibility in the labour force and, also, to ensure that, for those whose initial training becomes outdated, unemployment was not the inevitable result.

In addition to these efforts, added Frau Hamm-Bruecher, attempts were being made both to improve the nature of specialist training within the "Duales System" and to give all young people a broader educational background. The Ausbildungsjahrgezetz, which provides financial support to students from lower-income families in full-time (general or vocational) schools beyond compulsory attendance age, was intended to serve this purpose, and to this end finances had been increased considerably. The Federal Government was also thinking about legal provisions for acknowledged general and vocational courses under a Bildungsurlaub (extra leave for educational purposes) scheme.

Although in their report the examiners had attacked what seemed to them to be an overriding emphasis in Germany on the manpower approach, they had universally accepted, said Mr. Embling, the German authorities' concern to establish viable relationships between the world of school and the world of work. Such concern had, however, to extend far beyond the sort of projects outlined above in order to integrate education and employment so that experience in the one might be related to and redefined within the other. This supposed a measure of individual independence and self-direction among students that at present the German educational system did little to foster. It also demanded a great deal of the teachers and required their acknowledgement and understanding of the dynamics of modern mass technologies.

2. Educating the Teachers

Frau Hamm-Bruecher agreed that the creation of a new type of teacher might well provide the vital means for relating education to the economy, and vice versa, in a more successful manner. Teachers tended, however, to reflect social traditions and to teach as they themselves were taught so it was problematic to know to whom one might turn for the reform of this situation.

Prof. Husén pointed out that a very large number of teachers were now relatively young, and conventional attitudes to education were showing signs of change among these and other new recruits to the teaching profession. Many young teachers showed particular concern for changing society or at least contributing through education to the pursuit of certain social goals, such as "equality" or "freedom". This seemed to hold out some hope for future changes in teachers' attitudes in general.

Commenting on the way in which the examiners had dealt with this issue in their report, Mr. Leetsma (USA) commended the emphasis that had been laid on pupils' self-development. In creating a new type

of teacher, this emphasis was well-placed, as it pointed to the new type of pupil/teacher relationships one might hope to see in the future. Ideally such relationships would give the teachers a less dictatorial and more sympathetic role. They would also allow the pupils themselves to relate their experiences outside school to their in-school studies and develop their own special interests in their own particular fashion. In short, such relations would be generally more democratic.

3. Participation in and Control of Education

It had been the examiners' impression, said Mr. Embling, that, even where teachers had begun to express desirable, outward-looking tendencies, these were frequently suppressed in the actual operation of school systems centralized within each Land. Such tendencies had also seemed, in certain parts of Germany, to have provoked feelings of neglect on the part of the representatives of the Gemeinden who were seeking to play a more significant part in educational development. Mr. Embling felt strongly therefore that greater popular participation in education was necessary in Germany on purely pragmatic, rather than on democratic, grounds. A corollary to this was the greater need for as serious a commitment to educational reform amongst the people as existed in government circles. How best to accomplish such participation and involvement was, however, a more complex question.

As Mr. Eide (Norway) pointed out, popular participation in education could create new and sometimes more difficult problems than those which preceded it, possibly leading to an increase in educational rigidity and conservatism rather than to flexibility and a more progressive outlook. Participation could offer to different groups, such as teachers or parents, greater opportunities for educational control without, for example, providing any safeguards on the ways in which this greater control might be applied to the most important participants of all - the pupils. This point was pursued no further at this stage.

Frau Hamm-Bruecher emphasized that in Germany the problem of participation in the control of education occurred both at community and at government level with, in the latter case, Federal government having come in as a new partner at the Länder authorities in the more general aspects of educational planning. The search for the optimum division of responsibilities in this instance was currently at a crucial stage, with a major effort mounted to establish a workable framework for "co-operative federalism". The difficulties involved in this were still considerable, with opinions divided on the advisability of extending federal powers or defending Länder authority.

Table 1. PUBLIC EXPENDITURE ON EDUCATION AND CULTURE BY ADMINISTRATIVE LEVEL

In DM million

	1963	1968	INCREASE OR DECREASE 1963 - 1968 %
Schools, total	8,237.9	13,098.9	+ 59.0
thereof %			
Central Government..	1.0	1.5	+ 0.5
Länder	59.4	64.5	+ 5.1
Communities	39.6	34.0	- 5.6
Post-secondary, total[1]	2,371.2	4,467.3	+ 88.4
thereof %			
Central Government..	14.7	18.2	+ 3.5
Länder	85.3	81.8	- 3.5
Communities	0.0	0.0	+ -
Other science and research..	1,102.4	2,199.1	+ 99.5
thereof %			
Central Government..	56.4	64.3	+ 7.9
Länder	37.1	31.8	- 5.3
Communities	6.5	3.8	- 2.7
Cultural affairs[2], total	1,341.1	1,624.6	+ 21.1
thereof %			
Central Government..	5.5	4.8	- 0.7
Länder	47.4	45.3	- 1.9
Communities	47.1	49.9	+ 1.8
Total education and culture ..	13,052.6	21,389.9	+ 63.9
thereof %			
Central Government..	8.6	11.7	+ 3.1
Länder	61.0	63.3	+ 2.3
Communities	30.4	25.0	- 4.6

1. Including university clinics.
2. Including further education.

SOURCE: Federal Statistical Office.

Dr. Vogel pointed to the function of the KMK as the body responsible for establishing closer collaboration among the Länder. The question of responsibility should also be regarded in relation to financial involvement. The Länder devoted a third of their total expenditure to education and had to bear the major part of the rapid increase. Federal expenditure was much lower, both as percentage of total Federal expenditure and in absolute figures.

In spite of this Mr. Embling was of the opinion that the Federal authorities had a duty to give a lead and to set an example to the Länder in educational reform, to promote rethinking of their educational principles and methods within a more contemporary framework. This might temporarily, as in the Swedish case, result in more centralised control and less participation in education, but in the long run, with the implementation of reform, participation could be extended in a more meaningful and worthwhile manner.

Dr. Vogel remained unconvinced, however, that greater centralisation could result in long-term harmony. It would be valuable to encourage counter-forces to remote, centralised control, not only at Länder level but within the regions and schools in each Land, bringing participation in education to the grass roots level.

It was observed by several delegates that this discussion bore on problems common to most OECD countries, though perhaps particularly to countries which, like Germany, had a federal political structure (e.g., Australia, Canada, USA. The attempt to create and administer uniform and equal life chances for several very different areas was bound to conflict with intensive popular participation and control in local schools and colleges. A modus vivendi had to be sought but measures so far taken seem to promise results only over a long period of time.

4. Abolishing the Abitur

Federal initiative might become crucial, insisted Mr. Embling, in challenging long-standing educational traditions, such as the Abitur. This, in particular, occupied a special place in the public mind and represented a valued certificate and a general entrance ticket to university.

Dr. Reimers was adamant, however, that the abolition of the Abitur required a phased, transitional period. The Gesamthochschule was still inadequately developed and the new secondary school diplomas that would be part of a reformed system of secondary education and its links with higher

education as well as be part of vocational and professional life were still to be worked out. There could be no point in removing the Abitur until there was something better to put in its place.

Though concurring with this, Mr. Eide (Norway) argued that problems would arise if any replacement for the Abitur continued to involve ranking. In Norway, there was constant reference to the need of the economy for information on the rankings of pupils, but this was of little substance for, in effect, employers were much less interested in educational ranking than were teachers and educational administrators. Employers were quite capable of devising criteria for the selection of their own employees and clearly the economy would not break down even if all forms of educational ranking were abolished.

On this, perhaps one of the most controversial issues in German education today, Mr. Embling concluded that the caution exercised by the German authorities was understandable. It was hard to see how the impetus for educational reform could really gather speed in Germany, however, until it took up the challenge presented by inequality of educational opportunity and seconded by the existence of inefficient measurements of future educability such as the Abitur. Beyond this, the existence of a stratified system of education of which the Abitur was but one representative symbol, could not be considered compatible with either the full development of individual potential or human rights that the German politico-economy now needed so badly.

II

EQUALITY OF EDUCATIONAL OPPORTUNITY

Introducing the second agenda item, Professor Husén emphasized the extent to which the problem of equality of educational opportunity, or Chancengleichheit, had played a key role in the major documents recently prepared by the German educational planners, i.e., the Strukturplan, the Bildungsbericht and the draft of the Bildungsgesamtplan. Throughout Europe also equality of educational opportunity had appeared as one of the most pervasive themes in educational reform. When the examiners visited Germany they found this to be such a basic issue in all discussions that, in the initial design of their report, they thought of structuring all other issues around it.

Unfortunately, equality of opportunity was not a clear-cut concept although for a long time it was thought of in fairly simple terms. Initially it expressed the idea that all individuals were born with relatively constant capabilities and that the removal of social and economic barriers would ensure the full realisation of their potential. In the light of recent research, however, it had become evident that equality of educational opportunity could not be guaranteed by the simple removal of external barriers. The Coleman Report, the Plowden Report and the IEA Study of Mathematics had all, for example, pointed towards this conclusion. Not just external barriers, but also psychological factors, such as the attitudes of teachers and parents, affected the development of individual potential, and these latter must therefore undergo a process of transformation as well.

In education, equality of opportunity could be conceptualised either as a starting point or as an end result. The idea of the pool of ability, common in the 1960's and still adhered to in places, belonged to the former conceptualisation. In this case the individual's destiny was more or less regarded as written in the stars and the main role of the educational system was to ensure that the individual realised this destiny in due course. In the light of what was now known about the pre-school

stage, and about the effect of the school on a student in comparison with the effect of the home, a more radical conception of equality of opportunity as an end result had begun to emerge. People were beginning to argue that students should be guaranteed the same chances of absorbing what the school was offering, that individuals should be compensated for different handicaps, and that all should thus have a reasonable opportunity of reaching similar achievement levels.

Against this changing conceptual backcloth, Professor Husén sought to raise several questions. First, however, he felt it necessary to stress that the rather rigid German system of education exhibited particularly low participation rates on the part of working class students. In the IEA study, previously mentioned the degree of social bias at the upper secondary school level was in fact more pronounced in Germany than in any of the other countries studied. One reason for this was that children were selected at the early age of ten for the different types of secondary school. For the large majority this still meant a pre-determination for either a vocational or an academic career in education and in society. All available research indicated that in any educational system the selectivity and competitiveness involved in such tracking was closely related to pupils' social backgrounds. The occurrence of grade repeating, drop-out, streaming and so forth was in fact more extensive the greater the social bias. One could assume that the social bias exhibited in the German educational system was reinforced by the different types of selective measures employed.

Professor Husén therefore put the following questions to the German authorities:

a) What particular changes would be conducive to greater equality of educational opportunity?

b) To what extent was there an awareness that differentiation according to performance in the lower secondary school was working against equality of opportunity?

c) Was the introduction of an extra school year for five year olds seen as an important means for establishing equality of opportunity, or was it hoped to achieve equality of opportunity by extending the length of compulsory schooling at the other end of the age range?

1. Putting Measures for Equality of Educational Opportunity into Practice

Dr. Vogel, agreeing that equality of educational opportunity was an international as well as a specifically German concern, saw

this as a demand which had to be considered in conjunction with that for freedom. In spite of alleged incompatibilities between equality and freedom, individuals could only enjoy greater freedom in which to develop their particular abilities and skills through the elimination of external inequalities and compensation for other handicaps of which Professor Husèn had spoken.

Frau Hamm-Bruecher believed that this involved tackling inequalities that stretched far beyond the narrow school confines. Religious inequalities and the inferior status generally accorded to women in German society, for example, together prejudiced individuals' opportunities to progress within the educational system itself. Often these reflected a failure in the general fight for social equality and for these the educational system now had to compensate.

2. Selectivity and the Comprehensive School

Germany was the only country in the world, said Frau Hamm-Bruecher, where selection for one or other branch of the educational system occurred at the age of ten. Selection after four years of schooling should be maintained no longer, but children encouraged instead to find their own way into the right type of secondary education during their fifth and sixth years at school. Four-year primary schools for children up to ten years old had been introduced under the Weimar constitution as a political measure and the current selection process had been built on this basis with little pedagogic rationale.

The current controversy in Germany over the reform of secondary education illustrated, said Mr. Eide, the extent to which educational planning always demanded political choices. Arguments had ranged over which form of comprehensive school - the "additive" or the "integrated" - would be more conducive to equality of opportunity and what period of time would be most suitable for introducing the new school form. No action had been taken, however, because, although it seemed necessary to establish a unified method of schooling for all German children, no political consensus as yet existed on whether the additive or integrated model should be adopted.

As the representative of many different opinions, Dr. Vogel indicated that this was an issue on which he would not commit himself. He very much hoped, however, that a consensus would soon be obtained as otherwise the possibilities of a unified German school system would fade away. Like his colleagues he hoped that research would eventually yield more positive guidelines on which a sound decision might be based. There was reasonable hope for this as experiments in comprehensive

Table 2. PRIMARY AND SECONDARY GENERAL EDUCATION RATES OF TRANSITION FROM PRIMARY TO SECONDARY EDUCATION BY MONTHLY INCOME OF FATHER. LAND BADEN-WURTTEMBERG, 1968

	TOTAL LEAVING GRUNDSCHULE	THEREOF ENTERING		
		HAUPTSCHULE	REALSCHULE	GYMNASIUM
	%			
-600 DM	100	79.9	12.5	7.6
600 - 799 DM	100	75.4	15.9	8.7
800 - 999 DM	100	73.2	14.7	12.1
1,000 - 1,249 DM	100	59.9	15.3	24.8
1,250 - 1,499 DM	100	45.7	20.6	33.7
1,500 - 1,999 DM	100	34.9	13.7	51.4
2,000 -	100	28.4	4.8	66.8

SAMPLE: 1,508 interviews with parents of new entrants into secondary general education at the beginning of school year 1967/68.

SOURCE: Study, prepared for publication by the end of 1971, by Work Group for Empirical Educational Research, Heidelberg.

schooling were proceeding in 83 establishments, a number to be increased to 200 within the next few years.

As Professor Husén stressed, however, and as Swedish experience had confirmed, the advisability of establishing experimental schools as opposed to pursuing educational changes across the board had to be doubted. Furthermore, the results of such experiments and indeed the general role of educational research could not be advisory, but, at best, could only contribute to a process of conceptual clarification. The decision whether or not to introduce a particular form of comprehensive school required some broadening of the knowledge base available but it rested primarily on a political and social commitment.

3. Introducing an Extra School Year

The German authorities, said Frau Hamm-Bruecher, placed considerable emphasis on the importance of providing another year of schooling by extending pre-primary education. This was believed to be more important than extending schooling for fifteen year olds, though this would be desirable if sufficient resources could be made available.

Though the importance of early childhood education was not to be underrated, Mr. Eide insisted that it was very questionable whether the extension of full-time formal schooling to very young pupils was necessarily the best method of providing this education. It was also doubtful whether such a measure could do much to tackle the inequalities established between children by their experiences at home in the first few years of their lives. The rationale behind this policy was therefore not very clear. Furthermore, one doubted the extent of the benefits accruing from such a policy when emphasis on improving primary education itself was still lacking. Currently the amount of resources per pupil in primary schools in Germany was shocklingly low. What was more, if present trends were allowed to continue, the resources available in 1985 would be 50% less than the suggested necessary figure. Such a situation could only contribute to present inequalities, whatever the changes made in pre-primary education. Concentration of scarce resources on improving the primary schools might therefore in the long run prove to be a wiser policy.

Drawing the discussion to a close, Professor Husén agreed that improving the primary schools and providing children of primary school age with more equal educational opportunities posed many difficult questions. The German authorities had expressed their determination for example to concentrate on improving teacher/pupil ratios and to improve that for primary school to the level of 1 : 30 by 1980,

a ratio that in terms of cost and personnel considerations seemed reasonable. There was no research available that suggested, however, that reducing pupil/teacher ratios improved the education that the pupils received. Only when such action was accompanied or preceded by changes in curricula, in teaching techniques and by improvements in pupil/teacher relationships had one any basis for anticipating an increase in the quality of education available. He stressed, therefore, that prior to the proposed educational expansion, these substantive educational issues should be carefully re-evaluated. Otherwise progress towards equality of educational opportunity would be unlikely.

III

THE NATURE OF THE COMMITMENT TO EDUCATIONAL REFORM

The commitment to educational reform that the examiners had encountered among the Federal and Länder authorities had been of an intense and purposeful nature, but operationalising this commitment now required complex, technical decisions that raised a whole host of difficulties. Illustrating this situation, Professor Noah recounted the following fable.

> There was once a squirrel who had a rather poor life because he was so timid. Whenever a cat appeared, he would run up a tree; whenever a bird, perforce down again. He went to consult an owl on his predicament. Thinking for a moment, the owl replied, "Squirrel, you must grow wings. Then you can fly away from any danger and your life will be much happier." The squirrel was very pleased with this advice. Then, frowning a little, he said to the owl, "But how am I to grow wings ? The owl looked at him sternly. "My job", he declared, "is only to make policy, not to carry it out!"

The crucial problem of the German authorities, pointed out Professor Noah, was, in fact, how to carry out the policies which were at that moment being discussed. The "wings" that were needed were pedagogical, structural and financial, and were clearly the key elements in the process of the educational reform. On this basis, two questions had to be posed to the German delegation:

a) How was the very genuine German commitment to educational reform to be built, reinforced and sustained ?

b) How was the necessary financial support to be provided, particularly if the rapid growth that had characterised the German economy over the past two decades slowed down ? The financing of education might well have to be achieved in times less prosperous than those of

today - though this would not necessarily be a bad thing, as it might encourage less emphasis on educational expansion and more on real educational reform.

1. Translating Purpose into Practice

Dr. Vogel agreed that the commitment to educational reform in Germany was now firmly established. He was concerned, nevertheless, that the original commitment might be halted by temporary difficulties and the original public support diverted by the attraction of other prominent problems such as those of the environment. More serious than this, however, was the fact that much of the preparation for reform had still to be undertaken.

As pointed out earlier, many of the substantive issues of educational reform had not been adequately debated and it was still not clear what should be done to implement the stated objectives. There was great need, therefore, for further educational research, for new curricula and for new methods for training teachers. Consequently German spending on educational research had risen steeply over the last year and would continue to rise as the Länder enlarged their experimentation and research programmes and the universities became increasingly engaged in educational research. Unfortunately, discussion still tended to focus on the re-organisation of the school system rather than on reforming the content of education.

This again raised the complex issue of the relationships between educational research, policy-making and planning. Professor Becker pointed out the different objectives of individuals caught up in this problem: researchers generally wanted to get on with their studies and not engage in policy formation; politicians wanted to cover up for a lack of policy with more research. The suggestion raised in the examiners' report for establishing regional centres for educational research could do little to solve this problem or to feed increasing knowledge into policy or planning formation. Only the idea put forward by the Bildungsrat that the teachers themselves should give the impetus for research seemed to raise any likelihood of a stronger relationship between theory and educational practice. Given the characteristic conservatism of teachers' classroom management based on their current status and training, however, even this proposal had to be viewed with pessimism.

2. Financing Educational Reform

In considering the financing of education, said Dr. Vogel, it had proved rather futile to try to calculate the costs of implementing and running a reformed educational system as compared to the costs of

continuing the present structures. Any results that had been arrived at were controversial. It was quite clear, however, that a steep increase was needed in any case, whether to improve the efficiency of the present system and to account for foreseeable expansion, or to implement far-reaching reforms within an expanding system and with the end of teacher shortage finally in sight of the planners.

A recession in the German economy should not make reforms which took up so small a percentage of total funds impossible. However, in the event of an economic recession, decisions on which reforms to implement first would become urgent. Recently, therefore, the BLK had set up a committee to look into the problem of setting priorities for reform.

A further aspect of the financing of educational reform in Germany concerns the distribution of educational expenditure between Federal and Länder authorities. The Federal Government had pledged itself to double the percentage of GNP that it devoted to education, so Frau Hamm-Bruecher hoped that reform would now really find its wings. Frau Hamm-Bruecher pointed out that in 1970 the Government (Federal and Länder) were only spending 3% of GNP on education. Since this had risen to 4% in 1971 it was hoped that the target figure, exemplified by Norway and Sweden, which respectively spend 6% and 7% of their GNP on education, would soon be attained. For the Federal Government share, annual increases surpassing the hoped-for overall rates were foreseen in financial planning, though the Federal Government figure would still remain far below of 33% of their total budgets spent by the Länder on education.

Moving on to a more detailed discussion of the economics of educational reform, Professor Husén posed two, related questions. First, considering that staff costs covered at least two-thirds of total school expenditure, would it not be wise to consider reforms other than the radical reduction of pupil/teacher ratios proposed for the Bildungsgesamtplan. This reform would result in between 5% and 8% of the working population becoming school teachers and the viability of this, in both economic and educational terms, had to be questioned. If, for exemple, one discarded the traditional conceptualisation of the teacher's frontal, classroom role, one could begin to think in terms of creating, rather than imposing, learning opportunities. Clearly there were many ways of creating learning opportunities other than by increasing the numbers of teachers, and some of these methods might prove both cheaper and more effective.

Secondly, Professor Husén sought the rationale behind the current proposal to lower the pupil/teacher ratio for pupils between the ages of 10 and 16, rather than between the ages of 6 and 10. Since one could reasonably expect a greater capacity for dependent work among the older pupils, should not this emphasis be reversed?

Table 3. PRIMARY AND SECONDARY GENERAL EDUCATION

PUPILS/TEACHER PER CLASS[1]

SCHOOL-TYPE (GROUPED ACCORDING TO THE AVAILABILITY OF DATA ON CLASSES AND TEACHERS)	1959	1969
Pupils per Class		
Grundschule and Hauptschule	36.3	34.4
Realschule	33.0	33.0
Gymnasium, grades 5 - 13	29.1	28.8
Sonderschule	21.8	17.5
Average	34.5	32.1
Full-time Teachers per Class		
Grundschule and Hauptschule	1.0	1.0
Realschule	1.1	1.2
Gymnasium, grades 5 - 13	1.5	1.4
Sonderschule	0.9	1.0
Average	1.1	1.1

1. Not including City States.
SOURCE: Federal Statistical Office.

On the first question Dr. Vogel had no doubt whatsoever that in Germany research results had emphasized the irreplaceability of the teachers. Children definitely had a greater chance of success in small classes. Certainly other reforms had also to be institutionalised, such as the introduction of teaching auxiliaries, to give back to the teachers a reasonable working context and to end their current sense of alienation, but these changes could occur around the proposed increase in teacher

numbers. The German authorities could both afford the proposed teacher increase, at least up until 1985, and had a ready supply of candidates in the 40% of Abitur graduates now wanting to become teachers. The proposed reduction of pupil/teacher ratios was thus a thoroughly viable policy.

Responding to the second question, Professor Becker agreed that German thinking on this issue represented a tradition that had yet to be reconsidered. This could not take place until the teachers' role in the learning process had been fully re-assessed and cognisance taken of the ways in which children learned. In particular, the fact that learning was most accentuated between 3 and 5 years of age would have to be taken into account in the reform of teaching at the lower levels.

3. Commitment to the Reform of Higher Education

Moving to higher education, Professor Stern remarked on a certain weakening in the public commitment to university reform. Though in all parts of the Western World the universities were in crisis, the situation was possibly more critical in Germany than elsewhere. Here the old university structure, flooded by new students and obviously out of date by the 1960s, had yet to be replaced, but the German public, suffering from a surfeit of both student troubles and university blueprints had grown weary of the whole issue.

Public boredom and impatience had been compounded by the failure of those steps towards reform that had already been attempted. The political polarisation of extremist groups of students had in many instances negated student participation in decision-making and made university administration and organisation more rigid, rather than more flexible, than previously. The German educational authorities were, in a sense, now trapped between these polarised forces and were facing a situation in which the implementation of reform, regardless of the evident commitment of the reformers, would prove most difficult.

Firstly, therefore, Professor Stern wanted to know what the Federal authorities, the Länder and the other bodies involved in education were planning to do about the university situation? Was there any merit in the examiners' suggestion of setting up a "royal commission" of independent, intelligent citizens (lawyers, businessmen and trade unionists, rather than the professionals of whose statements the public have thoroughly tired)? Second, did the German authorities think that there was a danger of the growth of a new, illiberal dogmatism putting educational pluralism in jeopardy, a danger that might extend from the universities even into teacher training?

Concluding these questions with a military analogy, Professor Stern observed that the "generals" of German university reform tended unconsciously to rely on the most militant students as "infantry" to such an extent that they jeopardised their own authority. If by way of reaction fear of student militancy in Germany were allowed to control decision-making, history would be provided with yet another example of the generals being overwhelwed by the common foot soldiers.

Agreeing that the university crisis was of a particularly serious nature, Frau Hamm-Bruecher pointed out that the democratic tradition in Germany had not long been established. This partly explained why both the university system and German society in general failed in many respects to identify with democratic principles. The danger of extremist parties crushing the reforming middle, or of stampeding reformers into hasty decisions, was very real and without the support of established democratic practices it would be difficult to eliminate. The preparation of a report on this problem by a "royal commission" might prove helpful, but one was bound to be pessimistic about its chances of changing so difficult a situation.

Attempts to resolve the university issue had not, however, been without some success. During the war, 23 out of the 25 universities had been destroyed and these had now all been rebuilt. Though within these new universities radical minorities had sometimes had a disproportionate effect, measures for participation were still being pursued to guarantee individual students' rights. Student participation was now greater than ever before and some measures, such as postal voting, had proved successful in combating a monopoly position of the active extremists in the representative bodies as against the majority.

It was now felt, said Dr. Boening, that such measures, along with the development of the universities' self-administration, would prove more effective in the long run in resolving the universities' organisational problems than would ever the introduction of police into university campuses. The universities needed outside support not from the police but in the shape of improved resources from the Federal and Länder authorities if such measures were to prove successful in the long term.

Noting a concern in the Examiners' Report for a restructuring of higher education, Mr. Hrabi (Canada) asked whether, in the course of this restructuring, the nature and place of research in the universities would be re-evaluated. In particular, in the redesignation of the role of the professors, there seemed to be a danger of the research component being totally eliminated. It would be interesting to know what balance was envisaged between research in other institutions such as the Max-Planck Institute and the proposed National Curriculum Institute referred to in the report.

Though discussion on this issue is still continuing in Germany, Dr. Vogel said there was a clear agreement on supporting both teachers and research activities within the individual university establishments. Ways still had to be found of integrating teaching and research activities whilst preventing them from infringing on each other. Here the increase in student numbers posed a problem; with extra pressures on staff to teach, research activities were bound to suffer until more staff were recruited and a better teacher/student ratio established. In this case, planning activities were of a short to medium term nature.

In the consideration of such momentous problems as the re-ordering of student and teacher roles in university governance and the re-structuring of their academic operations, the extreme changeability of society made long term prospects for the universities difficult to clarify, Dr. Vogel concluded. It would indeed be an achievement if a progressive order for the universities of the future could be established.

CONCLUSION

A large degree of convergence in the views of the German Delegation and the OECD examiners resulted from their mutual examination of German educational policy, and a summary of the main points of this convergence may be helpful. The Delegation and the examiners shared a basic agreement on the need for extensive and fundamental reform of German education. They also agreed on the basis for this need. The rapid development of Germany's modern technological economy has been accompanied by a deepening cultural tension, which, while not unique to Germany, may be extraordinary in its intensity. This cultural tension specifically expresses itself in the gap between the functions served by the existing system of education in Germany and new fundamental needs for the education of the population. First, in their productive roles, a new large majority of the people must be prepared for flexibility, mobility and initiative. Second, the people should be prepared through their education for effective participation in the process of managing economic progress so that it will serve individual human development and the community's social and cultural values.

There was, further, mutual agreement that the German commitment to educational reform is in a middle stage of its development, and that this position is illustrated in the emphasis up till now on structural and organisational changes rather than on changes in the substance of the educational process. The most pervasive German commitment is to the achievement of equal educational opportunity, and it was seen that the specific proposals which have emerged so far conform to this pattern. These proposals include the advancement of selection within secondary education from the 4th to the 5th or 6th year of school, the lowering of pupil/teacher ratios, the adding of an extra year of compulsory education, and the establishment of some form of comprehensive secondary schools. There was also agreement on all sides that such organisational and structural changes would be effective only insofar as they would be accompanied by changes in such areas as curriculum, teaching

techniques, freer forms of pupil/teacher relationships, basic reform of teacher training and the development of broad participation in educational management.

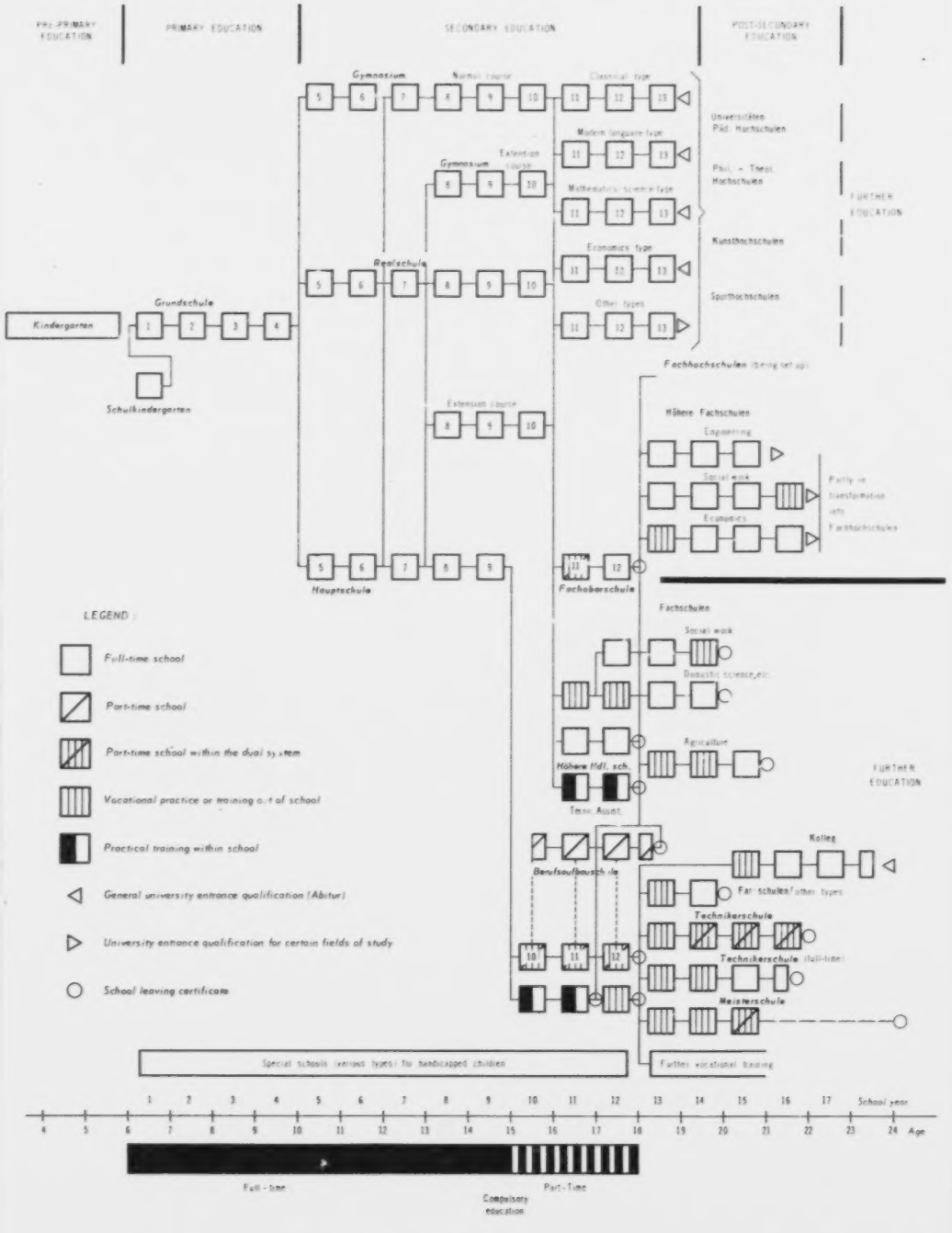
Common ground was also reached concerning the difficult problems involved in the development of broad participation in educational policy-making and management. It was seen, for example, that for a period at least, increased participation on a more equal basis by various groups in the management of education can create even greater rigidities. Decisions may be endlessly delayed by new layers of procedure designed for the mutual defence of everybody. Furthermore, at the lower school levels, a shift in authority among adults does not automatically result in arrangements for the pupils to take increasing responsibility for their own education as they advance through school. At the higher levels of education, participation has given rise in many places to the rigidities of idealogical polarisation. Nevertheless, the German Delegation cited the determination of their authorities to continue with the liberalisation of the student role in their education.

The Delegation and the examiners shared common views on the German assets as well as liabilities for accomplishing educational reform. Here, however, there was some divergence in emphasis. For example, though there was agreement that the well-deserved esteem for German education was an asset, the German Delegation chose to emphasize the impediments of tradition, while the examiners pointed to many German traditions as a foundation for progress. A case in point is the teachers' conservatism in their training and outlook, but the examiners pointed to the eagerness of large numbers of young teachers for a new implementation of high ideals in the classroom. Another asset for German reform is the traditional respect for scientific research. Again, the need for research on education was a strongly shared view. However, while some members of the German Delegation pointed to the need for research to guide educational reform, others, and the examiners, stressed that research could not serve as a substitute for political and social commitments to policy.

Finally, there was agreement that the need for general education reform, doing "more than a patching up of the existing system", called for a complete reconceptualisation of German education. The broad nature of this "grand idea", as it emerged in the viewpoints expressed during the confrontation meeting, was that the role of the German educational system as society's main agency for certification should be sharply subordinated, even eventually abandoned, to be replaced by a new emphasis on its strictly educational functions. It is the implications of this general idea that are in effect being examined in Germany in the light of many specific measures proposed or on trial in various places. It was agreed that there is now a long road ahead to work out such implications and that the journey has begun.

Appendix

THE STRUCTURE OF THE EDUCATIONAL SYSTEM IN THE FEDERAL REPUBLIC OF GERMANY, 1970



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